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The fourth leg of the Lowfat Roubo relay is nearly over

Like a lot of bench builds, my Lowfat Roubo has fallen way behind schedule. As I write this there's one more leg to glue up before I can assemble the bench top properly and start work on the lower section.

If you're questioning the two carefully placed brown paper sacks in the background, they've been an integral part of my summer, travelling several counties in the vain hope that at some point I'll be unloading a couple of empty sacks when I get home. Full of 10mm dowels – somewhere around 5,000 I think – I've been grabbing handfuls at every opportunity to try and use them up. But, one nearly finished Lowfat Roubo and 10 complete Knockdown Nicholsons have barely made a dent on this accidental purchase. The Dowelmax and Mafell Duo Doweler have rekindled my affection for the dowel in

recent years. Both are superb devices for fast and accurate joinery and I can't imagine a workshop without them in the future.

In this issue

There's a definite whiff of the past however, in this month's *F&C*. Kieran Binnie, the first of our two Correspondents this month, may have discovered a new 'ology' with his philosophical article on hand tool archaeology. John Lloyd, on the other hand, considers the pros and cons of buying budget planes. Project-wise we've sourced something special from *Furniture Fundamentals: Chairs & Benches* in the style of Wharton Esherick. This sort of simple stick furniture is an excellent way to get acquainted with chair making. Be careful mind, it's addictive and you've been warned. My contribution this month is a belated reaction to a common problem, namely edge jointing.

On the surface it should be the easiest joint to make and just like a lot of things in life, it is, when you know how. So, if you've been left wondering why your nice new shiny jointer plane isn't doing what it says on the tin, this one is for you.

Our finishing tech this month has been penned by Catherine Silverman, a conservator from Period Furniture Conservation. As you'll see, Japaning is a skill she's mastered and even if you don't fancy trying your hand at home, I think you'll agree it's a skill worth preserving. Enjoy!

Derek Jones

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Furniture & cabinetmaking

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Woodworking is an inherently dangerous
pursuit. Readers should not attempt the
procedures described herein without
seeking training and information on the
safe use of tools and machines, and all readers should
observe current safety legislation.

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Front cover image by Steve Hooper

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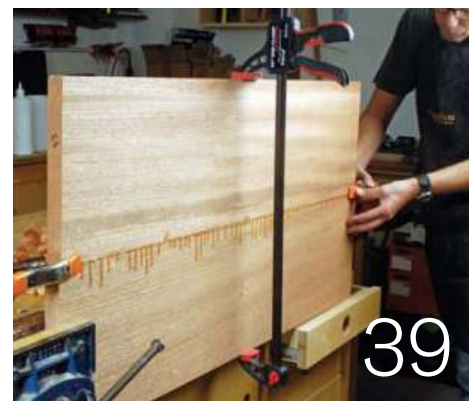
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Don't forget there are plenty more articles and discussions to be found on the Woodworkers Institute www.woodworkersinstitute.com



Contribute to these pages by telling us about matters of interest to furniture makers. Call Derek Jones on 01273 402 843 or email derekj@thegmcgroup.com. Please accompany information with relevant, hi-res images wherever it is possible

News & Events

The Best of British Design and Craftsmanship in Wood:

Shortlist announced for the 2015 Wood Awards



Furniture and Product Competition

Some of the UK's best new furniture and product designs in wood have been revealed as the Wood Awards' shortlist is announced. Four bespoke designs, three production designs and three student designs have been selected by the judges led by Max Fraser, design curator and author. All of the shortlisted projects were recently on display at 100% Design, at London Olympia and the winners will be revealed by host Tom Dyckhoff at the 44th annual Wood Awards ceremony at Carpenters' Hall on 10 November.

The Wood Awards are the UK's premier competition for excellence in architecture and product design in the world's only naturally sustainable material. The Awards aim to recognise, encourage and promote outstanding design, craftsmanship and installation using wood.

The categories include 'Bespoke', 'Production Made' and 'Student Designer'. One piece that particularly caught our eye in the 'Bespoke' category was 'From Greenwich To The Barrier And Perpetually Ajar' by David Gates, an unmatched pair of

collecting cabinets: one with a multitude of drawers, a fall flap and vertical tambour; the other with a cedar (*Cedrus*) lined cupboard, small drawers and a fall flap. The solidity of oak (*Quercus spp.*) is supported on visually light maple (*Acer campestre*) leg frames. Maple also provides for bright white drawer interiors. Cedar is incorporated as a reminder that we encounter furniture with all of our senses.

In the 'Production Made' category, 'Alpha Chair' by Brodie Neill stood



'Alpha Chair' by Brodie Neill, manufactured by Made in Ratio, solid ash, solid ebonised ash and solid walnut



'Throne Stool and Pew Stool' by Torsten Sherwood from London Metropolitan University, timber supplied by Timber Cut 4 U, made in European beech

out – a solid wood, all-purpose stackable chair produced using the latest production technologies of shaped wooden furniture. Through the 'Alpha Chair', Neill has explored the use of CNC technique as a high-production tool rather than a prototyping technology. Additionally, the design utilises digital sculpting, taking away the reliance on moulds. By adopting contemporary digital processes of design and manufacture, the 'Alpha Chair' takes on a smooth appearance in contrast to the more traditional joinery of chair design where each element is exposed.

'The 'Student Designer' category is particularly impressive, but our favourite has to be 'Throne Stool and Pew Stool' by Torsten Sherwood, which were made as part of a design project that aspired to

reinvent traditional timber details with the constraints of using conventional tools, techniques and materials. The stools are a reinterpretation of the archetypal finger joint but instead of two planes intersecting with fingered edges, one of the planes is made up of many intersecting batons, creating a v-shaped seat.

The stools are light and immensely strong, taking advantage of the strength and flexibility of European beech (*Fagus sylvatica*). Inspired by Scandinavian heritage, the designer has soaped the wood to produce a natural finish that celebrates the raw qualities of the material.

We'll bring you details of the winners once they are announced. In the meantime, see www.woodawards.com for more details.

Geometric wooden inlays make stunning storage solutions

Designed especially for Italian design website Porro.com, Alessandro Mendini recently created two inlaid sideboards whose intricate geometric inlay decoration speaks volumes. These sideboards feature three different types of wood: elm (*Ulmus procera*), oak (*Quercus spp.*) and acacia (*Acacia spp.*) and the fronts of the pieces become geometric compositions, elevating the sideboard to works of art and not just storage units. Each piece comes with a maple (*Acer campestre*) interior and elements made from pliable brass, bronze and inox steel.

To find out more, see www.porro.com.



PHOTOGRAPH COURTESY OF WWW.PORRO.COM

One of Alessandro Mendini's geometric inlaid sideboards

Storage with geometric wooden inlays



PHOTOGRAPH COURTESY OF WWW.PORRO.COM

TIMBER TRADE NEWS Citrus long-horn beetle



PHOTOGRAPH COURTESY OF WIMPEIA COMMONS

The citrus long-horned beetle

The citrus long-horn beetle, *Anoplophora chinensis* (Forster, 1771) is a serious pest of trees in China, Japan and Korea. There are at least 100 susceptible trees including some important timber species such as oak (*Quercus spp.*), willow (*Salix spp.*), sycamore (*Acer pseudoplatanus*) and Japanese red cedar (*Cryptomeria japonica*), as well as citrus and other fruit trees. Females lay up to 200 eggs singly in the bark and the larvae tunnel into the wood, producing piles of sawdust at the base of the tree. Adults emerge one to three years after laying, depending on climate. The tunnelling by the larvae weakens the trees, making them liable to wind damage and degrading timber quality. This insect has been transported around the world in living trees, particularly ornamental bonsai. It is regarded as a quarantine pest by the European Plant Protection Organisation and there have been several successful interceptions. It has also been intercepted on several occasions in the USA. It occurred in the UK in Essex in 2008 but is believed to have been eradicated successfully. There are some natural enemies in its native range, including the ant *Oecophylla smaragdina*, which can control the pest so successfully in orchards in China that no insecticide spraying is needed.

Chris Prior



Close-up of an Asian long-horned beetle

The Annual Contemporary Furniture exhibition at the Peter Sefton Furniture School

Handmade in Britain 15, the annual showcase of the very best of contemporary British craft and design, takes place at Chelsea Old Town Hall this November. Browse exceptional crafts, buy unique and original gifts or commission a bespoke piece of work directly from over 120 of the UK's finest designer-makers, each handpicked by a panel of industry experts.

The show is a wonderful opportunity to shop for exquisite ceramics, glass, furniture, textiles, jewellery and silverware in a beautiful,

historic venue. Makers will be on hand throughout the weekend to talk to you about their work and showcase their collections, inviting you to learn how your favourite pieces are made and to discover the story behind that perfect gift.

Not to be missed at the fair this year is the New Graduate Showcase, supported by Arts Thread. Alongside established and well-known makers, the show celebrates new talent and invites you to meet designers at the very start of their career. For more information, see www.handmadeinbritain.co.uk.



Jonathan Pearce's bedside cabinets



Peter Sefton demonstrating

I was invited by Peter Sefton to demonstrate spoon carving at his event celebrating the culmination of a full academic year completed by seven very talented students.

After a leisurely drive through some picturesque countryside, I arrived at the stunning location where Peter has obviously worked very hard to build not only a beautiful family home, but also a generously proportioned and well equipped workshop with all the hand tools, machines, timber and space required for several students to produce the various projects that they tackle throughout their journey into furniture making.

I got the full tour and time to appreciate the very high level of skill the graduates had been able to demonstrate in their exhibition pieces. Whether table, chair, desk or cabinet the work on display was all

of exceptional quality, a clear testament to the expert tuition the students must have received to achieve such a high level in the given time frame.

Peter explained that the course also covers much more than the making, giving the students a good grounding in timber selection, design and marketing. Last year's ace graduate Sam Carter, who now works at the school, also had some stunning console tables on display that had recently bagged him the prestigious Alan Peters award for craftsmanship and design.

The day was enjoyed by many who also got to see demonstrations including, woodturning, spoon carving, hand planing, French polishing and routing. I look forward to seeing what this year's students will have to show us this time next year. See www.peterseftonfurnitureschool.com for more information.

Axminster Tools & Machinery to open new store in Cardiff

Axminster Tools & Machinery is expanding the retail side of its business once more. With a presence already in the Home Counties, Midlands, South West, North West and North East, the tool retailer is now planning to open a store in the Cardiff area. The new outlet, which is scheduled to open this November, is situated at Valegate Retail Park to the west of Cardiff city centre and will be the eighth store for the company.

With 12,000 sq.ft. of retail space, the Cardiff store will be open seven days a week, including bank holidays, in line with most other retail outlets in the area. Although the new store will appeal to a wide range of customers, it will also display an impressive range of industrial machinery, including models from Axminster's own Industrial Series. The store will also offer a delivery service in the local area.

One aspect that will differ from all the other Axminster stores is that some signage will be in both English and Welsh. This new store will still maintain the Axminster ethos of offering high quality advice and customer service. For more information, see www.axminster.co.uk.



Axminster's North Shields store, which opened in March, 2015

Events



A scene from the Decorative Antiques and Textiles Fair

The Decorative Antiques and Textiles Fair

This Autumn, from 29 September to 4 October, 'The Battersea Fair' will mark its 30th birthday. In 1985, decorative antiques dealer, Patricia Harvey, along with her husband Ralph, conceived and launched a new kind of Fair, created for the interior design trade. It brought together like-minded dealers from around the country who understood that interior decorators were desperately looking for unfussy antiques and elegant period design that fell outside the remit of traditional antiques fairs. The ethos and intentions of the Decorative Fair have remained steadfast: to offer buyers good value, unusual pieces, and heaps of inspiration. At the Autumn 2015 Fair, buyers will discover what hundreds of thousands have found before: a user-friendly, relaxed environment, with 145 dealers displaying painted, decorative and fine antique furniture; rare and unconventional objects; collectors' items and elegant 20th-century design dating from the 17th century to 1980. Art of every period is also included, from antiquity to contemporary.

When: 29 September–4 October 2015
Where: Battersea Evolution, Battersea Park, London SW11 4NJ
Web: www.decorativefair.com

Record Power summer & autumn shows

During the next few months, Record Power will be appearing at various dealers' premises across the UK and Ireland to answer your questions and demonstrate products from their extensive range. At many of the events, exclusive show deals will also be available on the day.

When: 2–3 October, 2015
Where: WH Raitt, Main Street, Stranorlar, Co. Donegal, Republic Of Ireland
Web: www.whraitt.ie

When: 9–11 October, 2015
Where: 'The' Tool Show, Kempton Park Racecourse, Staines Road East, Sunbury on

Thames, Middlesex TW16 5AQ
Web: www.thetoolshow.com

When: 24 October, 2015
Where: Snainton Woodworking Supplies, The Poplars, Barker Lane, Snainton, Scarborough, North Yorkshire YO13 9BG
Web: www.snaintonwoodworking.com

When: 30–31 October, 2015
Where: R.S. Paskin & Co Ltd, Oldington Trading Estate, Stourport Road, Kidderminster, Worcestershire DY11 7QP
Web: www.rspaskin.co.uk



Mike Proven demonstrating woodcarving at Brodies Timber

Annual Scottish Woodworking and Tool Show 2015

Brodies Timber in Perthshire, Scotland will be holding their Annual Scottish Woodworking and Tool Show 2015, which takes place from 16–17 October, 2015. You can expect to see a host of demonstrations and exhibits from furniture and instrument makers, woodturners and carvers, plus a wide range of tool exhibitors and woodworking clubs. Great deals on tools and timber will be available over both show days. Once again, the event organisers will also be holding competition events in their 'Open Entry' category as well as the 'Woodturning Club Competition'.

When: 16–17 October, 2015
Where: The Old Sawmill, Inver, Dunkeld, near Perth, Perthshire, Scotland PH8 0JR
Web: www.brodiestimber.co.uk

R.S. Paskin & Co Ltd's Woodturning and Woodworking show

All Woodworking enthusiasts and woodturners are invited to R.S. Paskin & Co Ltd's upcoming Woodturning and Woodworking show. Expect to find special on the day show prices, demonstrations from woodturner Les Thorne and leading manufacturers will be on hand to answer your questions and give the best advice on machines and tools. Stocks of native and exotic wood blanks will be available to buy as well as a wide variety of accessories and tools, plus DIY, trade and professional machines. This event benefits from free parking, free refreshments – donations taken for their chosen charity – and free expert advice.

When: 30–31 October, 2015
Where: R.S. Paskin & Co Ltd, Oldington Trading Estate, Stourport Rd, Kidderminster, Worcestershire DY11 7QP
Web: www.rspaskin.co.uk



The Rocking Horse Shop stand at a previous North of England Woodworking & Power Tool show

The North of England Woodworking & Power Tool show 2015

The North of England Woodworking & Power Tool show, or the 'Harrogate' show as it is affectionately known, is the largest and longest established retail woodworking show in the country and is a terrific day out for its thousands of visitors.

For 2015, there will be an excellent line-up of demonstrators with more than 40 taking part, covering every discipline. You can expect to see demonstrations from woodturners including Stuart Mortimer, Andrew Hall, Michael Painter and *Woodturning* magazine Editor, Mark Baker. The show takes place at the usual venue of the Great Yorkshire Showground and advance tickets are now on sale. For further information, see details below.

When: 20–22 November, 2015
Where: Hall 1, Great Yorkshire Showground, Harrogate, North Yorkshire HG2 8NZ
Web: www.skpromotions.co.uk

■ ROBINSON HOUSE STUDIO

Robinson House Studio celebrate an exceptional summer

Students from Robinson House Studio, past and present, had an exceptional summer this year receiving two awards at the Celebration of Craftsmanship & Design exhibition in Cheltenham last August. Around 10% of exhibitors at this year's show could be traced back to Robinson House and accounted for three out of four of the visitors' favourite pieces. Under the watchful eye of Marc Fish the studio has a reputation for producing some of the most ground breaking pieces of furniture to be seen on display anywhere in the world, and if this year's CCD is anything to go by it's beginning to rub off on the students.

Traditional cabinetwork is high on the agenda but complementing this with the latest developments in construction is turning into a winning formula. Students are encouraged to experiment and look beyond what is regarded as a typical outcome from a wide range of techniques ranging from laminating, steam bending and metal casting to laser cutting, decorative plating and traditional wood sculpture. The Furniture Makers Company awarded Marc this year's Design Award for one of his limited



One in Marc Fish's series of One Piece Console tables that was awarded this years CCD Design Award

edition One Piece Console tables and the Woodland Heritage Award was awarded to long course student Richard Warmisham for his stunning pen case.

Robinson House offer a range of long and short courses covering traditional and contemporary disciplines and weekend tasters to get you started. They're a great way to try out a new technique or add to your range of complementary skills. Contact www.marcfish.co.uk to find out more.



Richard Warmisham's pen box

■ THE RYCOTEWOOD FURNITURE CENTRE

Rycotewood furniture exhibition opens to the public

The Rycotewood Furniture Exhibition recently opened at The Old Fire Station in Oxford, providing visitors with an opportunity to see incredible displays of craftsmanship by current and recent students from City of Oxford College.

Some of the pieces on display included the 'Velo' chair by Jan Waterston who recently won the Mixology15; Student Designer of the Year award, as well as Joseph Bray and his wonderful sideboard and Emile Jones' desk and stool, pictured here.

Joseph Bray, Course Leader BA (Hons) and FdA Furniture: Design and Make commented: "This exhibition is an exciting collaboration between Rycotewood and the Old Fire Station. The exhibition is made up of award winning pieces demonstrating creative craftsmanship in wood and will be complemented by student demonstrations in the gallery window. The student work on display is the equal of most professional exhibitions, we are all extremely proud of their success!"

The Rycotewood Furniture Centre has been highly respected in the industry for over 75 years and students are regular award winners in national competitions.

For more information, see www.activatelearning.ac.uk and www.oldfirestation.org.uk.



Emile Jones and his desk and stool

PHOTOGRAPH COURTESY OF RYCOTEWOOD FURNITURE CENTRE

■ CHICHESTER COLLEGE

Woody strikes gold at World Skills



Christian Notley and winner Edward 'Woody' Harringman



Edward Harringman at work

Chichester College's cabinetmakers are celebrating more success after former student Edward 'Woody' Harringman scooped the top prize at this year's WorldSkills competition, which recently took place over four intense days in Brazil.

Edward fought off strong competition from other talented international craftsmen to secure his position at the top, despite using unfamiliar local timber to build the required side table with drawer and two doors. In doing so, it means he has repeated the achievements of another former student of Chichester College –

George Callow who won gold in the same category two years ago.

WorldSkills, held every two years, is the largest international skills competition in the world. It sees around 1,000 young people aged 18–25 from all over the world come together to compete for medals in more than 45 different skills, including electrical installation, welding, web design, cooking and bricklaying.

The trio were guided by Furniture Making Department lecturer Christian Notley. He also serves as the World Skills UK training manager and endured a

nail-biting wait as Edward raced to finish his cabinet in the final four hours of the contest, having fallen behind schedule going into the final day. Edward's interest in cabinetmaking started while he was studying resistant materials for his GCSEs – working with wood struck an immediate chord with him – and when he enrolled at Chichester College in 2009 he discovered he could compete against the best in the world.

Edward was one of three gold medal winners for the UK team. For more information, see www.worldskills.org.

■ BUCKS NEW UNIVERSITY

Bucks New University Furniture student sees seat unveiled at historic house

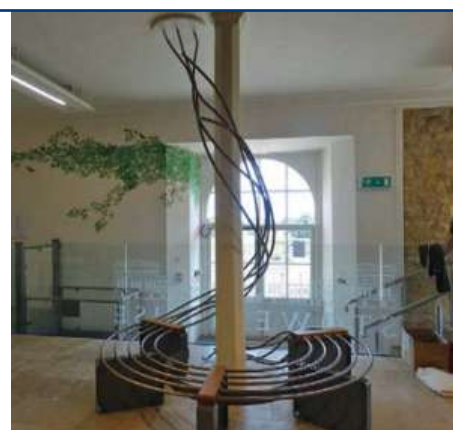
A seat designed by a Bucks New University furniture student has been unveiled as part of the new Welcome and Discovery Centre at Stowe House, near Milton Keynes. The design by Katie Christian, 20, won the 'Take a Seat competition', part of Stowe House's 'Enlightenment for All' project, aimed at creating better facilities for visitors.

Workshop Supervisors Brian Siarey and Dominic Jones helped Katie construct the metal and woodwork parts of the seating and she was also assisted by fellow student, Liam Kennedy. Katie's design is wrapped around a pillar at the Centre and stands at 3.2m high and 2.8m wide. It is made predominantly from tubular steel, with legs and support underneath constructed from sheet steel. Solid oak

(*Quercus spp.*) pads on the seat's three main legs create two separate seating areas.

The seating creatively interprets an aspect of Stowe's history and Katie's design was chosen from around 20 entries by Design & Craft students at Bucks New University. She said she was delighted to win the competition: "It is the first thing visitors see as they go through the double doors to the Centre and took six to seven weeks to complete, including weekends and lots of overtime!"

Stowe House is a Grade I* listed country house and its Welcome and Discovery Centre has been developed with grants from Heritage Lottery Fund,



The seating at the new Welcome and Discovery Centre at Stowe House, designed by Bucks New University Furniture student Katie Christian

Esmée Fairbairn Foundation and World Monuments Fund Britain.

The Discovery Centre is built into the House's previously unseen wine cellar and exhibits modern artworks inspired by Stowe alongside original research and objects, artefacts and furniture.

If you're a member of a collective and would like to raise your profile then submit a story to derekj@thegmcgroup.com

Editor's round-up...

Having trouble sourcing the right tool for the job? Derek Jones sets about identifying the essential tools and equipment on offer this month

All sterling prices include VAT, correct at time of going to press



PHOTOGRAPH BY GARY JONES

You've got to love these old moulding planes, or at least the ones that just need a little tickle to get them running like new. I've had this No.8 half round for a while now and have only just got round to fettling the iron and taking it for a spin. I'm no expert, but the general consensus in the workshop is that the metal fence, just out of view on the back side, is an aftermarket tweak. I'm certainly not complaining because it has transformed what is really quite a specialised tool into something I'd perhaps use on a regular basis. We've got some more pictures and information for you on this restoration at the F&C blog (www.woodworkersinstitute.com). I can't remember how much I paid for it, probably no more than a fiver, but it's turned out to be a 'keeper' and maybe something I'd even use to demonstrate how much fun these planes are to use. In fact the more I use them the more I find reasons to use them. There's already an edge on the Lowfat Roubo Bench that's screaming out for a hand planed hollow.

Despite a momentary lapse into the past we've still found time to seek out a few items with a plug on this month. I'm not sure if we'll be gazing back at these all misty eyed in years to come but we will be thankful for them nonetheless.

Axminster Rider sharpening station

The ultimate sharpening station from Axminster's Rider range has everything you need to get your planes, chisels and scrapers sharpened, honed and ready to use. Consisting of a double-sided diamond stone – 1,000 and 400 grit – leather strop and honing compound, board and all the instructions you need for the ultimate edge.

Measuring 250 x 315mm, the Rider Sharpening Station is CNC machined from 13mm-thick synthetic resin laminate. It is unaffected by oil or water and easy to keep clean. Four rubber feet give stability while sharpening and ensure the board will not creep across the bench in use.

The stone recess is 228 x 89mm, which matches the Axminster Rider double-sided diamond bench stone, which is included in the package. It is a simple matter to hold shorter stones in place using a homemade wedge or spacer to fill any gap. A stone needs to be just snug enough to prevent movement back and forth as you sharpen.

The strop is 203 x 65mm quality split grain leather and removes any remaining minute wire edge and puts a final high polish finish on your edge tools. It is a matter of personal preference whether you use it with or without a polishing compound.

Designed to work with an Axminster Rider honing guide, it is as effective with similar Eclipse type guides. The edges of the board feature recesses, which act as set-up guides for bevel angles of 25°, 30° and 45° for plane irons and 25° and 30° bevel angles for chisels. This is a very effective sharpening station with guaranteed repeatability for sharpening or honing angles. The sharpening station includes a board, strop, paste and instructions. Please note that this price is valid until 31 December, 2015.





Veritas three-piece chisel set

New to the Veritas range are these three high quality chisels with blades made from Veritas's own unique PM-VII steel.

They are about one-third of the scale of the Veritas bench chisels, each one being approximately 80mm long overall. The three tools in the set have 9.5mm, 6.3mm and 3.2mm wide blades. All permit a delicate touch for fine, controlled cuts, such as box making. Their 2.4mm-thick PM-V11 steel blades are hardened to HRC 61-63 and ground flat on the face. They have a 25° bevel and the chisel handles are bubinga (*Guibourtia demeusei*) with a stainless-steel ferrule. Please note that this price is valid until 31 December, 2015.

Armor Tools' auto-adjust clamps

Rockler Woodworking and Hardware has launched an extensive line of auto-adjust clamps and accessories from Armor Tools that reduce setup times and provide maximum clamping versatility.

The Armor Auto-Pro line includes hold-down and inline toggle clamps – including two groundbreaking models that secure in traditional workbench dog holes and in perforated worktables – as well as face clamps that will be available in July. All feature Armor's patented auto-adjust technology, which maintains consistent clamping pressure without the need for time-consuming recalibration when switching between workpieces of different thicknesses.

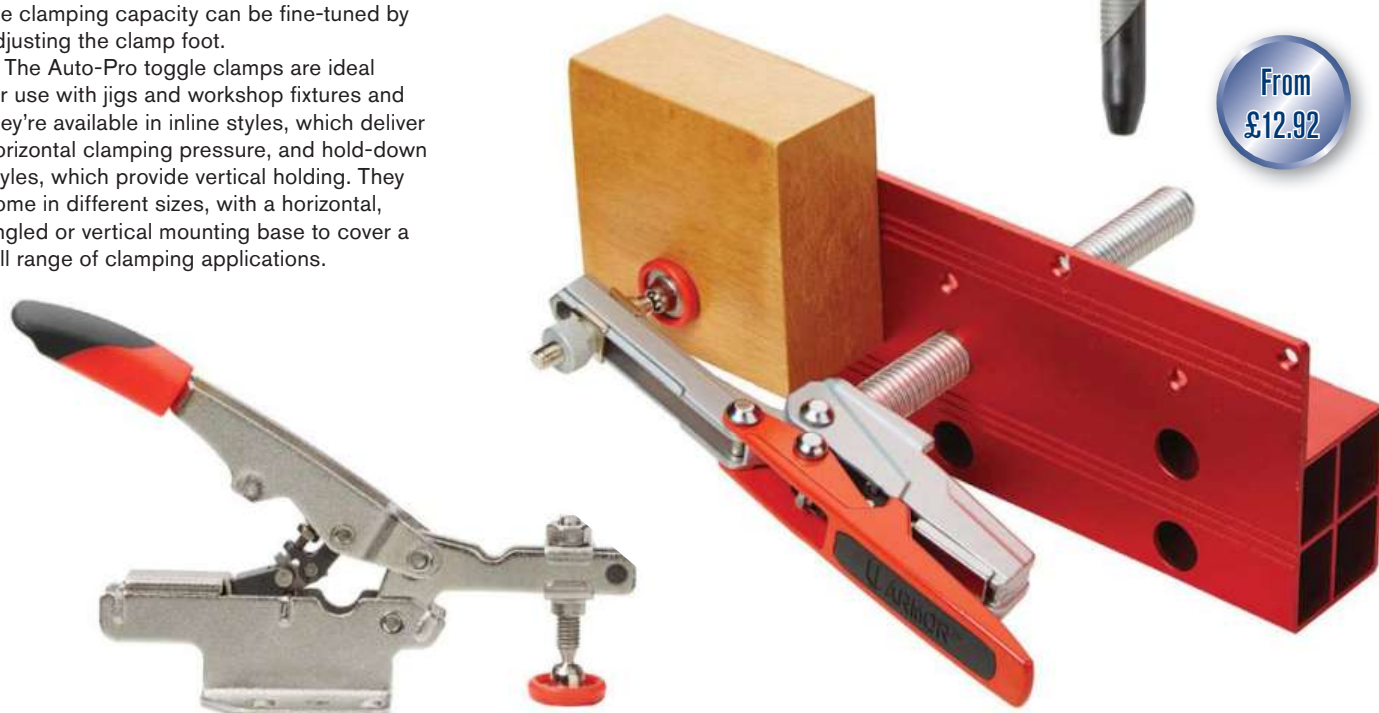
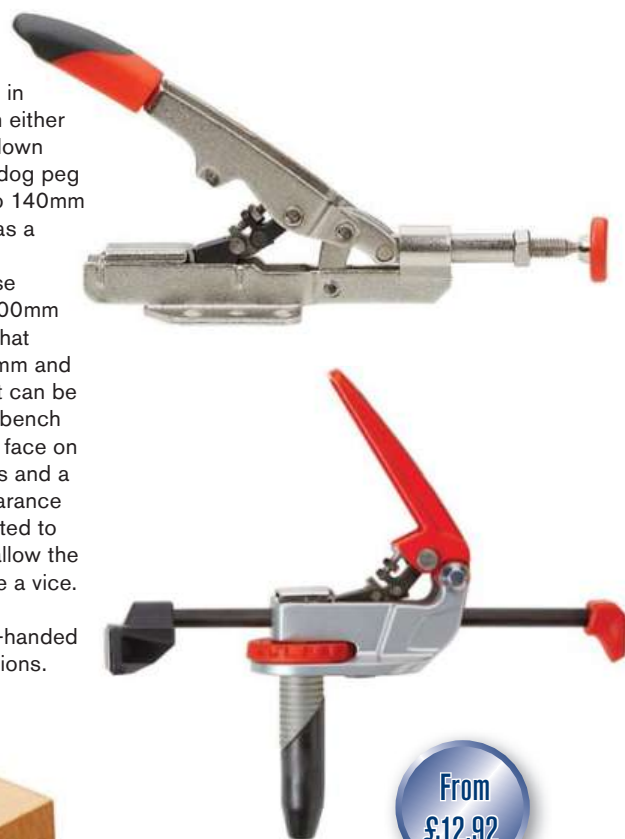
Clamping pressure can be dialled in from 25lbs to as much as 550lbs – on some models – by simply turning an integrated adjustment screw – but once set, the pressure remains consistent regardless of workpiece thickness. On the toggle clamps, the clamping capacity can be fine-tuned by adjusting the clamp foot.

The Auto-Pro toggle clamps are ideal for use with jigs and workshop fixtures and they're available in inline styles, which deliver horizontal clamping pressure, and hold-down styles, which provide vertical holding. They come in different sizes, with a horizontal, angled or vertical mounting base to cover a full range of clamping applications.

The Auto-Pro Dog Clamps secure in 20mm dog holes and are available in either inline or hold-down style. The hold-down version comes with a 190mm spiral dog peg that allows the clamp to extend up to 140mm above the surface. The inline style has a 90mm adjustment range.

Broadening the application of these innovative clamps are the 100mm, 200mm and 355mm long aluminium fences that secure in bench dog holes and 100mm and 305mm brackets with dog holes that can be mounted to the side or top of a workbench or table. The fences feature a 32mm face on one side to support taller workpieces and a 16mm face on the other to allow clearance for sanders and planes. When mounted to the side of the bench, the brackets allow the hold-down dog clamp to function like a vice.

The Auto-Pro face clamps will be available in four sizes, providing one-handed face clamping in a variety of applications.



► Record Power PT107 planer/thicknesser

The PT107 255 x 180mm heavy-duty planer/thicknesser is perfectly suited to the discerning woodworker who expects professional and reliable performance from a solid, durable and compact machine. While compact enough for smaller workshops and ideal for serious home or trade users, this machine boasts some impressive industrial features and is exceptionally smooth and accurate in operation.

The thicknessing table is supported by a sturdy central column for superior stability and easy rise and fall adjustment. The three knife cutterblock ensures an excellent finish and the fence can tilt up to 45° and is supported by a strong mounting system.

There is now a special offer on this machine, whereby you can save £250 on the RRP, so if you are in the market for a good planer/thicknesser, then take advantage of this great offer now.



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Trend T31 wet and dry dust extractor

This new powerful semi-professional wet and dry Class L auto-start vacuum extractor with power take off is suitable for hobbyist, DIY and light trade use. Dust class category L is rated to EN60335-2-69, for dust with workplace limit values greater than 1 mg/m³. It features a powerful but quiet 1,400W silenced motor – maximum 1,600W – and power tool take off with auto-start feature of up to 2,200W and a five second run-on delay. There is a large 35 litre capacity impact resistant

plastic container with castors as well as an extra long 7m power cable. An extra long 5m hose benefits from a power tool adapter and there is also a HEPA cartridge filter with 0.3 micron filter efficiency and nylon pre-filter. Includes floor cleaning kit, power tool adaptor, crevice tool, upholstery tool and a no foam filter. There is also a container outlet plug for ease of emptying liquids. The T31 is ideal for workshop, garage and light trade applications.

12" Carcass Saw

The 12" Carcass Saw from Skelton Saws is a true companion in looks to the Skelton Dovetail Saw. The versatile Carcass Saw shares many of the same features while being upscaled and balanced proportionally. The Carcass Saw is, however, noticeably bigger than the Skelton Dovetail Saw, with the blade thickness increased by .020" and the brass is both deeper and heavier. This saw is inkeeping with 18th-century saws.

The Carcass Saw can be purchased in either rip cut or crosscut and includes a canted blade 2-5/16" at heel to 2-1/16" at toe; a 45° handle hang; rosewood (*Dalbergia latifolia*) open pistol grip handle size M-L – other sizes can be custom made; a rip cut of 14ppi/13tpi – 8° rake angle; and a crosscut 15ppi/14tpi – 12° rake angle/15° fleam.



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Lie-Nielsen Tongue & Groove plane

Based on the old Stanley #48 and #49 planes the Lie-Nielsen Tongue & Groove planes cut a groove with one side of the cutter exposed. Swing the fence round to expose both sides and you're able to cut the tongue. The slot in the one-piece blade registers on the milled body casting, to ensure squareness and equal depth of cut on both sides. Since this is a heavy stock removal tool, no depth adjuster is needed; the tool simply bottoms out when it's completed the respective parts of the joint. The #48 is made to centre on $\frac{3}{4}$ " stock leaving a $\frac{1}{4}$ " tongue, the tongue and groove being offset on thinner or thicker stock. The #49 is made to centre on $\frac{1}{2}$ " stock. You can find both planes in stock at Classic Hand Tools, www.classichandtools.com or the just the #48 at Axminster Tools & Machinery. Look out for an article in a few month time on this very plane.



£150.32



Contacts

Armor Tools' auto-adjust clamps

Contact: Rockler Woodworking and Hardware
Tel: (001) 800 279 4441
Web: www.rockler.com

Axminster Rider sharpening station

Contact: Axminster Tools & Machinery
Tel: 03332 406 406
Web: www.axminster.co.uk

Lie-Nielsen Tongue & Groove plane

Contact: Axminster Tools & Machinery
Tel: 03332 406 406
Web: www.axminster.co.uk

Record Power PT107 planer/thicknesser

Contact: Record Power
Tel: 01246 571 020
Web: www.recordpower.co.uk

Trend T31 wet and dry dust extractor

Contact: Trend Machinery & Cutting Tools Ltd
Tel: 01923 249 911
Web: www.trend-uk.com

Triton Router Track Adaptor

Contact: Triton Tools
Web: www.tritontools.com

Veritas three-piece chisel set

Contact: BriMarc Tools & Machinery
Tel: 03332 406967
Web: www.brimarc.com

12" Carcass Saw

Contact: Skelton Saws
Tel: 01723 448202
Web: www.skeltonsaws.co.uk

Triton Router Track Adaptor

The TRTA001 Router Track Adaptor fits any of the Triton routers to the precision guide tracks used with the Triton Plunge Track Saw 1400W. It's a very simple way to create laser straight rebate or dado cuts where a regular fence attachment or even a router table would struggle – across the middle of a large sheet or fixed surface, for example.

A robust, chrome-plated, low-friction baseplate and guiderails provide a sturdy and precise alignment to the track, combined with the quick-fastening mechanism ensuring minimal time and complexity in fixing the router to the track rail. The Router Track Adaptor features two-part micro and macro adjustability, allowing for precise router location on the workpiece. The locking mechanism ensures complete rigidity of the component during use.

While designed specifically for the Triton guide track system – as used with the TTS1400 Plunge Track Saw 1400W – the adaptor is 100% compatible with Festool and Makita track rails. Triton routers include the JOF001 Compact Precision Plunge Router 1010W, the MOF001 Dual Mode Precision Plunge Router 1400W and the TRA001 Dual Mode Precision Plunge Router 2,400W.



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Twisted columns with a quadrant removed

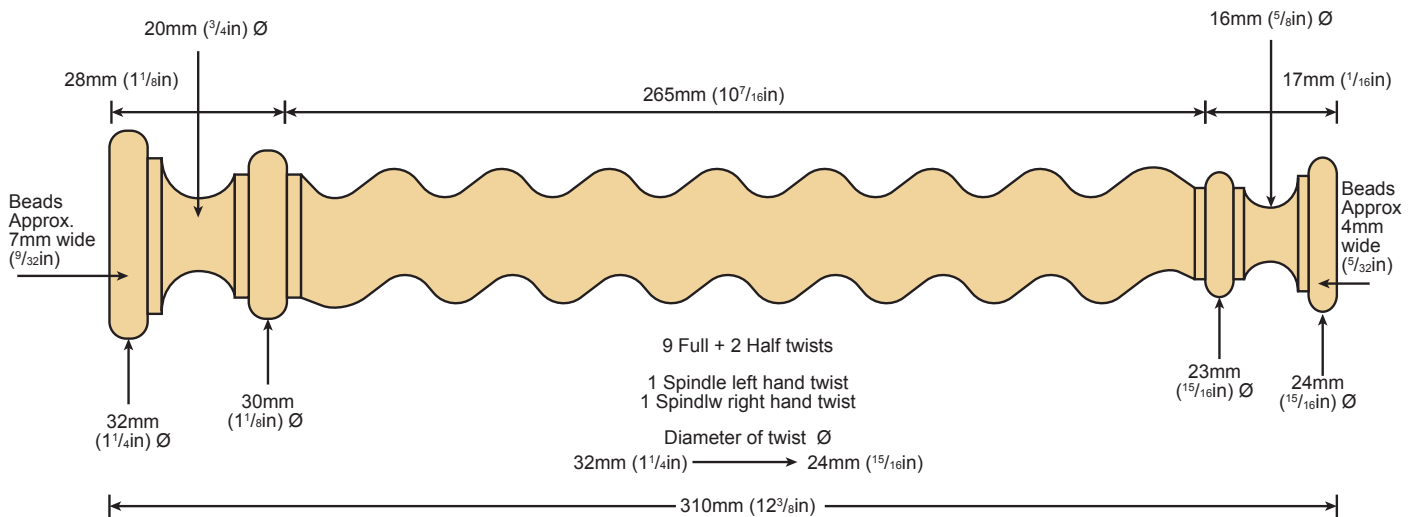
Richard Findley shows how he helped to restore an antique longcase clock with some twisted columns

I enjoy most aspects of my work but one of my favourites is the restoration work. This type of work is usually intricate, often with interesting fine detail and usually comes in small batches or one-offs – perhaps a set of knobs or pair of finials, for example. I like the idea that the item being restored might be a couple of hundred years old and, with some TLC, may well last as long again. The thought that in a hundred years' time someone might admire my work, as I admire the craftsmanship of those that made the original item, is particularly pleasing. I have had a few of these jobs over the last few

years and another came to me a few months ago. The first thing that struck me was that the client contacted me from Canada. I find it hard to believe there is no one with the skills to do such work over there, but was pleased that, of all the craftsmen, my client found me on the Internet. Technology really has made the world a smaller place! My client was the proud owner of a month-going longcase clock, made by Robert Dingley of London in around 1780. As I understood it, the clock was in a reasonable condition but was in need of some care and attention. One important feature of this clock,



missing from it, were the ebonised twisted columns that run vertically down each side of the face and appear to support the capital on the top of the clock. There are so many different types of twist out there that it took a considerable amount of research by my client to pin down exactly which would best suit



Tools required

- Ring centres
- 32mm spindle roughing gouge
- 10mm beading & parting tool
- 6mm spindle gouge
- Vernier callipers
- Ruler
- Coloured pencils
- Hand saw
- Small square Microplane
- Small round Microplane
- Large square Microplane
- Safe edge Microplane
- Abrasive from 120-240 grit & a red 600 grit Nyweb pad
- Table router
- PVA glue
- Newspaper
- Sash clamps
- PPE: facemask, respirator/dust mask and extraction

Timber requirements

American tulip (*Liriodendron tulipifera*)

TURNING A 'SPLIT' TURNING

Turning this type of blank is quite safe as long as you take care with the preparation and use some form of ring centre to hold and drive it on the lathe. Ring and steb centres will support the whole blank across the join whereas a standard 60° live centre point could push the joint apart.

SAFE USE OF THE ROUTER

The single most important safety feature here is the wooden 'finger'. This applies an even pressure against the full depth of the timber, keeping it tight to the fence, which prevents it from twisting. Had the timber twisted on the cutter it could easily have been thrown across the workshop.

his clock. After a number of phone calls and several emails, which showed various images found on the Internet of similar clocks, we decided on the design of twist and I was able to begin. The small columns featured a single tapered twist and needed a quadrant removed to allow the column to sit around the corner of the clock face.

Step 1

First I plane up a blank of timber to the required size and score along two of the faces with a marking gauge and to form a cross on each end.

Step 2

I use my router table to remove the quadrant from the blank. This was done in two passes over the cutter to achieve the cleanest possible finish.

Step 3

With the quadrant cut away I then need to glue in a new piece using a paper joint. I spread some PVA glue along one face of the cutout, place a piece of newspaper in the joint, carefully folding it into the corner and spread some glue on the mating face of another piece of prepared timber.



Step 4

I then place it into a pair of sash clamps to hold it while it dries.

Paper joints

Paper joints are used to produce 'split' turnings. This is done by preparing your two halves and spreading them both with PVA adhesive. A piece of newspaper is laid smoothly between them before they are clamped together to dry. Once turned they can be split with a chisel, which de-laminates the paper and produces two identical halves. The type of joint needed here is the same, only there are two faces rather than one. I only glued one of those two faces however, as I decided it would be easier to split at the end.

Step 5

Once dry, I trim the blank to size on my tablesaw and cut it to length. Here you can clearly see the newly glued-in quadrant.

Step 6

The blank is mounted in the lathe and turned round with my 32mm spindle roughing gouge.

Step 7

With the blank turned round I then mark the positions of the turned areas at each end and cut them to size using my beading and parting tool and Vernier callipers.

Step 8

Switching back to my spindle roughing gouge I then form the taper.

Step 9

With the turning completed for now, steps 9-21 are done with the lathe switched off. The next step is to mark out the twist. Using the cross that I scored across each end of the blank at the start, I draw four lines along the length of the wood and number them one to four.

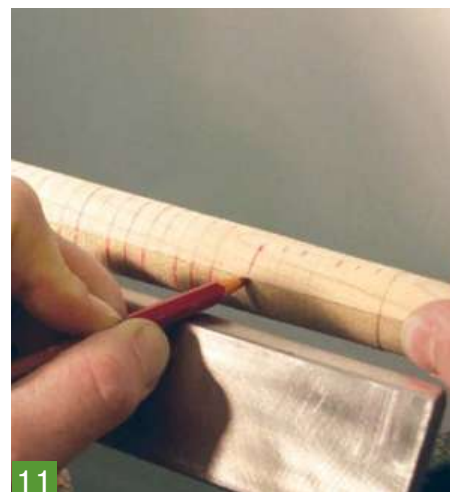
"I then mark out the pitch lines. These show the distance between the centres of each twist"

Step 10

I then mark out the pitch lines. These show the distance between the centres of each twist or bine. In this case I know I need 10 twists – nine full and two halves – on the length of 265mm, so these lines are placed 26.5mm apart.

Step 11

Using a different coloured pencil so the lines all make sense to me, I then divide the space between each pitch line into four, so these lines are roughly 6.5mm apart.





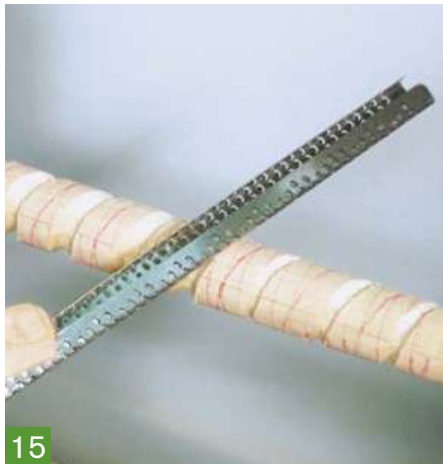
12



13



14



15



16



17



18

Step 12

You should be able to see now that a grid has been formed. With this setting out I am able to repeat this twist as many times as I need to. I draw my twist lines freehand, joining each of the corners of the grid and depending upon which way round I connect the corners, it gives me a left- or right-hand twist. I use the red pencil to mark the bines and a pencil to mark the valleys.

Step 13

I then use a saw to cut along the pencil line. This is not to set the depth but simply to transfer the pencil line deeper into the wood. You can imagine that, as soon as I touch the pencil line with a rasp, it is gone, and it would be easy to lose my way and potentially make a mistake.

Step 14

With a small square Microplane I widen the saw cut in to a 'V'-shaped groove.

Step 15

Having cut an initial groove I can make it wider and deeper with the larger square Microplane.

Step 16

I often use the square Microplanes for twists at this early stage. They very quickly remove the waste wood and the groove that is left can easily be shaped into one of several variations of a barley twist. In this case, I need a small round bottom to the valley so I switch to a small round Microplane for this.

Step 17

I then round over the tops of the bines with a fine cutting, safe edge Microplane which is mounted in a hacksaw frame. The edges are rounded and don't have teeth on them so you can work the bine without damaging the bottom of the valleys. I found that the hacksaw frame was not very comfortable to use for long periods so later fitted a wooden handle.

Step 18

You can now see that the twist is really beginning to take shape, but it is just rather faceted and so needs some smoothing work with abrasives.

Microplane rasps

Microplanes are perfect for cutting twists. They are available in a wide range of shapes and sizes but the ones I use most are the large and small square rasps and the safe edge as shown here, followed by the round versions. My only complaint about the tools is that the handles are very poorly designed and when using them for any length of time will cause severe discomfort in your hands. You will also notice in the photos that I have a plaster on my forefinger; this is not due to a turning related injury, but is in fact there to prevent the very sharp edges on the spine of the rasp from cutting me.

Step 19

The first step is to use what I call a sanding stick. This is a softwood batten, around 10mm thick, with its bottom edge rounded over. The abrasive I use is hook-and-loop backed and so I have stuck strips of the hook Velcro to the batten, which secures the abrasive in place. With this tool, I can sand the bottom of the valleys and blend and round over the bines. I use 120 and 180 grit abrasive here.

Step 20

There is a clear improvement in the shape now, but there is room to make it better still. I cut a strip of abrasive and work it over the length of the twist. I use 180 and 240 grit here and the aim is to remove any coarse sanding marks and to smooth and blend the bines and valleys.

Step 21

The twist is almost done now, but to give it a final smoothing I turn the lathe on at its slowest speed, in this case 200rpm. This step is best done below around 400rpm. I hold a piece of 240 grit abrasive and repeatedly run it along the twist as it turns on the lathe. To achieve the best finish I turn the piece of wood around, so that I can sand in the opposite direction as well.

Step 22

I then dampen the twist with water, which raises the grain and shows up any tiny faults that I may have missed. Once dry, I then repeat step 21 in both directions with 240 grit and then a red 600 grit Nyweb pad.

Step 23

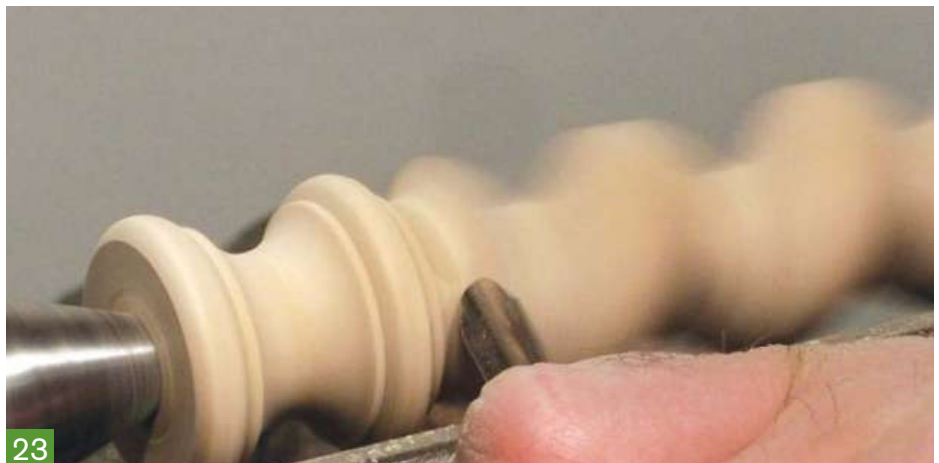
With the twist complete I am able to turn the details at each end of the spindle, a simple bead and cove combination, followed by cutting a small cove into the end of the twist, which tidies up the area between the turning and the twist.

Step 24

Now for the moment of truth; how is my paper joint? I used a sharp chisel and carefully tapped it with my carving mallet. I did this from both ends and slowly split away the quadrant. I hand sanded the quadrant area to remove as much evidence of the newspaper joint as possible and to ensure it would fit the clock neatly.

Step 25

I sent the completed twists over to my client in Canada and he did a dry fit to see how they looked. As you can see, apart from being quite the wrong colour, they fitted and suited the clock perfectly. It is now down to the restorer to ebonise them and bring the clock back to its former glory.



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CMT 694.008 Glue Joint Head



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CMT Spiral Planing Block HD



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These new cutter heads have been designed for planing and jointing on soft or hard wood and wooden boards on spindle moulder machines. Ideal for routing our curved elements by using a bearing guide (sold separately) and a template. *Special Offer is for 30mm bore only*

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Reeds & leaves

In this extract from *Furniture Fundamentals: Chairs & Benches*, Chuck Bender designs and builds a Wharton Esherick-inspired stool

Looking at Wharton Esherick's furniture, it's easy to see how he brought nature into his designs. I'm not talking about how he simply carved abstract turkey buzzards on the front of an Arts & Crafts-style desk, but how, once he began to view furniture as sculpture, the pieces themselves abstractly represented natural elements.

Like many studio woodworkers, Esherick developed one product that kept the cash flowing. In Esherick's case that was his famous three-legged stool. He made them from scraps of figured material laying about the shop, making each random in shape and size. Esherick sculpted the seats while shop apprentices turned the legs and did the joinery.

The design of the stools is simple – slender legs with a light, draping seat floating atop. When I look at the stools, I am reminded of reeds or rushes by a pond in fall; the willowy reeds stretch upward supporting a fallen leaf. This is the imagery I hope I've captured in my interpretation.



Furniture Fundamentals: Chairs & Benches

This excerpt is taken from *Popular Woodworking's Furniture Fundamentals: Chairs & Benches*. To purchase a copy for yourself, see details below:

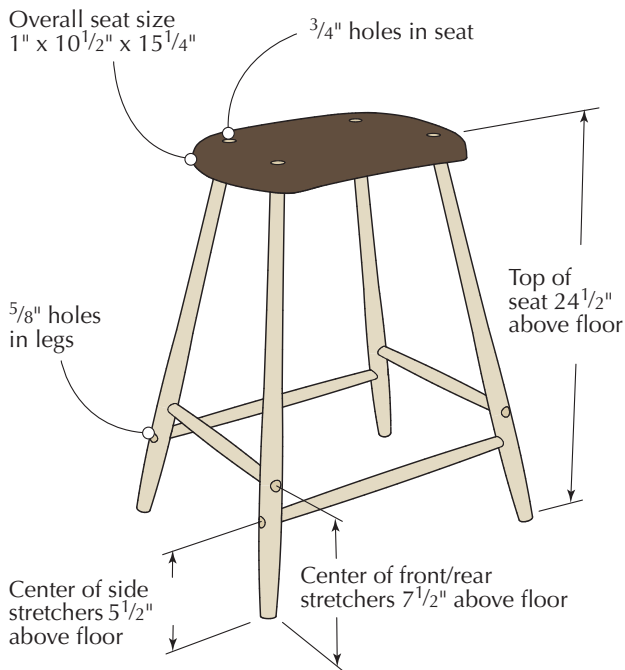
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Time to design

For a period furniture maker, the hardest part of tackling a project that's inspired by an existing piece is resisting the urge to simply copy it. That goes double for a project that isn't of a period design.

I began with a general concept in mind: a three-legged stool with a low back that would work as seating at my kitchen counter. As the opening photo shows, the concept changed slightly. The final version of the stool came about after much deliberation, contemplation and plain old fear.

Esherick had it easy: his stools had three legs and the seats were generally small. They played perfectly into his love of asymmetry.

Whenever you add a back to any type of seating furniture, the first thing you need to do is increase the size of the seat. If you don't, the surface area will be too small when used for its intended purpose. Also, there might be too little material to support the back if the seat is too small.

For my larger seat, I bypassed the scrap bin and grabbed a board that was about 266mm wide and some plywood for a pattern. I then started sketching out an asymmetrical seat. My seat demanded a fourth leg; the legs and stretchers mimic those on Esherick's stools. My intent was to design and build something he might have actually made.

Cutting list

- 1 seat 25 × 266 × 387mm walnut
- 4 legs
- 1 front stretcher 32 × 32 × 473mm* maple
- 1 back stretcher 32 × 32 × 460mm* maple
- 2 side stretchers 32 × 32 × 336mm maple

* Add 50mm to length for turning



Pattern seating. Choosing your figure and grain direction is crucial for a sturdy stool. The nails in the pattern help locate the centre of the leg holes



Rough cut. Careful placement of the pattern allows the seat to be defect-free. The handsaw makes short work of roughing out the seat blank

Time to choose

With a basic pattern in hand, it's time to look at the figure in the board and decide from which part to cut the seat.

Consider a few things when selecting your material. Figure is of paramount concern when making something this simple in design. Make sure it gives the piece a sense of visual balance, while not being overwhelming.

Once you've decided on the figure, look at the grain structure of the board. The more figured the board, the less stable and strong the seat will be. At one end I had an offcentre crotch. In the middle, the grain was fairly straight, but there was some curl. At the other end, the board had a knot and some good curl: I chose the knotty end.

The crotch end of the board would have made a more spectacular seat, but because it was offcentre, one of the holes for a leg would have passed right through a section where the grain direction was almost vertical,

making it too weak for a leg joint. The middle of the board was just too plain for my taste. By staying off the knot, I got a seat with interesting figure that is structurally sound.

After laying out and cutting the seat, I turned back to the pattern to figure out leg-hole placement. The holes need to be in far enough from the edge of the seat so as not to weaken the board, but not so far that they end up too close together. I made the holes in the seat asymmetrical in keeping with Esherick's style.

Once you have the leg holes marked, drive a small finish nail through the plywood pattern at the centre of each location. Align the pattern on the bottom of the seat blank and tap the nails to mark the centre of the legs.

Time to drill

By drilling the holes prior to shaping the seat or turning the legs, you'll find the 20mm

holes easier to drill and you'll be able to test-fit the tops of the legs as you turn them.

The angles on Esherick's stool legs varied quite a bit. Some were more vertical while others splayed outward to give the stool a greater sense of drama. In choosing the angles for my stool, I used a few offcut sticks, cut to the approximate height of the stool. With the seat inverted on my bench, I held the sticks at an angle that suited my eye.

In order to drill the holes in the seat blank, there has to be a way of referencing the blank to get the legs splaying at relatively the same angle. Esherick may have eschewed symmetry, but having the legs on the stool splay at four different angles would have been a bit much, even for him.

I made a simple jig for the drill press from two pieces of plywood and a scrap of 2×4. By placing the scrap between the plywood along one edge, you create an auxiliary table

that tilts toward the front of the drill press. If you like more or less splay on your stool's legs, modify the size of the spacer.

Mark a centreline that divides the slope into left and right halves. This is the line you use to set the orientation of the seat to keep the angles consistent on all four legs. Align the centreline with the drill bit on the press then clamp the jig in place.

Draw diagonal lines across the bottom of the seat through the centres of the leg holes. Now you merely have to line up the centre marks with the drill bit and the diagonal line with the centreline on the jig and drill away.

Angle drill. Using a shop-made jig, the leg holes are easily bored at the selected angle



Time to turn

Esherick made many legs from hickory (*Carya spp.*), oak (*Quercus spp.*) and ash (*Fraxinus spp.*), but I didn't limit myself to his choices. I've always liked the strong contrast of maple (*Acer saccharum*) – particularly when it's curly – and walnut (*Juglans spp.*), which was Esherick's favourite wood. If you have other woods that you favour, use them. Just remember: when choosing a species for your legs, make sure that it can stand up to flexing under the weight of an occupant and to the abrasion of actually being dragged across a floor.

Turning the legs is a fairly simple process. Begin with a quick layout stick to ensure all your legs come out the same size. The stick

doesn't have to be much more than a scrap cut a little longer than the final leg length, with hash marks showing the top, bottom and middle of the swelled area – on mine, that's 165mm from the bottom.

The only other sizes you need to determine are the final diameters at each of the three points on your stick. On my stool the top of the leg is 20mm, the bottom is 22mm and the middle of the swell is 32mm in diameter.

Once the blanks are sawn to size, mark the centres on the ends and chuck them in the lathe. I usually make my blanks about 1.5mm oversized in thickness and width to give me a little wiggle room in case my stock warps.

Start by turning the entire blank to a 32mm

diameter cylinder. Hold the layout stick to the cylinder and transfer the hash marks. Using open-end wrenches of the appropriate size as callipers, turn the ends down to the proper diameters. All that's left is to flow from the middle of the swell out to the ends.

To get all four legs approximately the same size, I turned the first to size and shape then used it as a reference as I turned the remaining legs. I still transfer all the marks from the layout stick, but the comparison ensures I'm not making the subsequent legs larger or smaller in diameter. Just like using the layout stick to mark all the important points on the leg, using the first turned leg gives you a single benchmark from which to work.



Layout sticks in action. After turning the leg blank to a 32mm diameter cylinder, use the layout stick to plot the top and bottom, and the middle of the swelled part of the leg



Wrench it up. A fairly simple turning trick to get consistent sizes is to use a wrench as a calliper



Skewed turning. Work from the largest diameter towards the smaller diameters when turning. This is particularly important when turning the slender tenons on the stretchers

Time to stretch

With the legs turned, it's time to dry-fit them in the seat, and to figure out the angles and placement of the stretcher holes. I've spaced the stretchers 25mm above and below the swell centreline. To figure out the angles, use more scraps. Because the front stretcher acts as a footrest, I positioned it – and the back stretcher – below the centreline.

Clamp the scraps to the legs referencing off the stretcher lines. Use a sliding bevel to approximate the angle and check that the left and right sides are the same. Transfer the angles to a layout stick and label them so you don't get confused later.

The side-stretcher angles are measured the same way. Because my seat is rectangular, the stretcher angles on the sides are different than on the front and back. Pay attention when drilling the holes

because the legs are handed. With the scrap boards clamped in place, take the rough measurements for the stretcher lengths. On my stool the side stretchers are of equal length while the front stretcher is longer than the back.

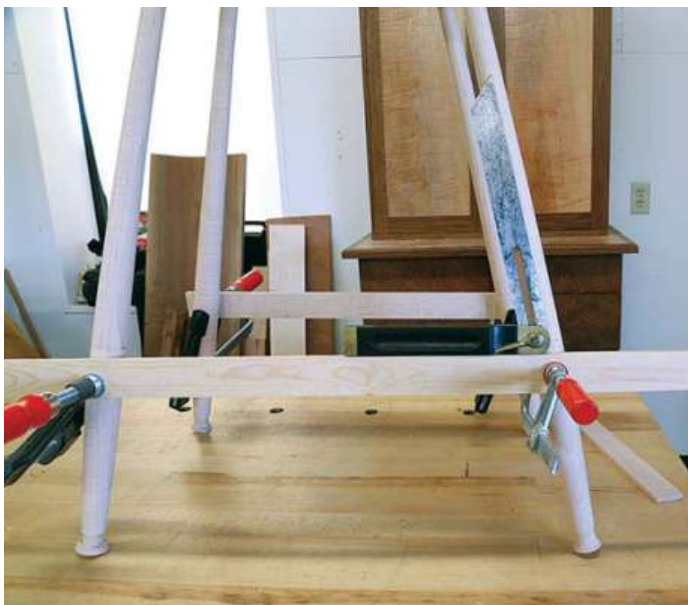
Once you have the lengths calculated, turn the stretchers. I made mine overlong and made sure the ends were 16mm in diameter over the last 63mm.

To drill the holes at the proper angle on the drill press, you need a way to hold them consistently. I made a simple jig from a 2×4 offcut. On both ends measure and draw a centre mark 25mm off the back face and centred on the width. Set up a 32mm Forstner bit in the drill press. Clamp the piece into a hand screw and drill from both ends until the holes meet in the middle.

The hand screw ensures the piece is held perpendicular to the table and provides a safe way to drill the deep holes.

With the hole bored all the way through the 2×4, rip the piece to 17mm thick, referencing off the back face. This makes a jig that cradles the legs and allows a stretcher to be inserted in order to drill the second hole perpendicular to the first, and it helps minimise tear-out as the drill bit exits the leg.

Chuck a 16mm drill bit into the press and use the layout stick to set the angles. Centre the jig under the bit and drill the first holes through the legs. Insert a stretcher into the holes and readjust the table to the proper angle. Make sure the jig is still centred. Now drill the second hole in each leg. Complete the holes on all legs.



Angle it. Clamp scraps to the dry-assembled base and set a bevel to the centreline of the leg. This will be the angle at which you will drill the holes for the stretchers



Double drill. Making a jig to drill the stretcher holes can be easily done with a small piece of 2×4. Drill a 32mm hole from both sides then rip the piece to 17mm thick to create a trough in which to place the leg for drilling



Tilted drilling. Tilt the drill press table to the proper angle using an angle layout stick



First angle. With the drill bit centred on the jig, drill the front and back stretcher holes



Side angle. After tilting the drill press table to the second angle, insert a stretcher into the hole in the leg, place the assembly in the jig and drill the side-stretcher holes through the legs. You'll need to drill two legs with the table tilted left and two with it tilted right

Time to grind

It's now time to shape the seat. This can be done with hand tools, power tools or a combination, but here I chose to use a combination of both.

I began by sketching a rectangular shape that encompasses all four leg holes. This represents the transition point from concave to convex shape.

The seat is dished out about 6mm deep. If you plan on making multiples of the same stool – not very Esherick-like, but I can understand the need – you may want to use a Forstner bit to drill some depth guides so you are consistent; otherwise, dive in.

I set up a mini-grinder to hog out the bulk of the waste on the seat. You could also use a scorp and round spokeshave to accomplish the same.

After roughing out the dished area of the seat, I moved to rounding off the

outer edge. The idea is to give the seat a drooping appearance.

To lighten the look of the seat, the underside is chamfered. To achieve the natural drooping-leaf appearance, the chamfers arch toward the top, following the shape created when rounding off the outside edge of the seat. The more you chamfer under the seat, the thinner the look; just don't go too far or you'll start to reduce the material surrounding the legs. For this work, I use spokeshaves.

Once the seat is roughed in on both top and bottom, I switch to a sander to smooth out all the bumps. I then round all the edges with a spokeshave, but you can also do this with a sander or grinder. Don't bother to take the seat to final smoothness. There will be cleanup to do after the stool is assembled.



Grind it out. Attach the seat topside up to a stick with a couple of screws through it. This allows you to secure the work in a vice for grinding and shaping with a variety of hand tools

The design process

Designing a Wharton Esherick-style stool started long before I milled any lumber or made a sketch. It began with a concept, but how one turns a concept into reality is something of a mystery to many. Most folks begin with a plan, perhaps from a book or magazine, that may or may not have a cutting list. The key thing is that it's something tangible. Many never take the leap of making something that only exists in their head.

While Esherick stools don't exist only in my head, I didn't have access to one of his stools or to measured drawings; I had photos and a concept. For me, the design process usually starts with a layout stick but this project doesn't work well with section drawings. Without knowing the leg angles, SketchUp wasn't the optimal choice, either. While I tried a couple of rough perspective sketches, a mock-up seemed in order.

My first concept kept Esherick's three legs, but because my original thought included a back on the stool, I started sketching out a larger, squarish seat rather than his more triangular, rounded look so there would be room to sit on the stool once it was done. I also wanted to be sure to capture Esherick's sense of lightness.

My first seat had arched sides and arched around the back to accommodate a curved crest rail; it resembled a stylised Windsor D-shaped seat. Using 50mm poplar (*Populus spp.*), I hacked out a seat, turned three legs and drilled holes. With the first mock-up dry-assembled, it was

easy to see that something wasn't right. The top was heavy, the legs looked spindly and I still had to figure out a back. A new design was in order.

I first had to lighten the look of the seat. I narrowed the depth of the pattern but kept it rectangular to give me enough width to include a back. As the seat narrowed, it was evident that the stool needed a fourth leg. It wouldn't otherwise be stable. I grabbed more poplar, hacked out another seat, turned an additional leg, drilled more holes and roughed out a seat. The new mock-up had the lightness and balance I was looking for, but left me wondering about the addition of a back.

At this point, it was best to jump into the real project. This allowed me to refine the majority of the stool and gave me more time to think about the back design. As the project took shape, the reality of adding a back continued to disappear. The more I worked on it and the more I looked at the light appearance, it became clear that adding a low back would do little to improve the design; it would make the seat appear clunky.

If you have a project idea, you might just have to jump in and give things a try. Sometimes your standard method of work just won't cut it when you're trying to work out a design.

You don't have to work out the problems on your good lumber. Don't be afraid to grab cheap scrap material and start hacking away.

You don't need to be exact nor do you



Inspiration. This is Wharton Esherick's bread-and-butter stool

need to work to final finish to get an idea of what works and what doesn't about a design and you don't need to get stuck in one track or the other. If part of the project can be dealt with using a layout stick or SketchUp drawing and another part using a foam or a wooden mock-up, you need to dive in and give it a try. Your design, as well as your woodworking skills, will benefit from the experience

Time to glue

You now need to dry-fit the entire stool one last time. This allows you to cut off legs or stretchers that are just far too long. You want them to protrude through the joints but not so far that you can use them for hanging plants.

At this point, mark how the wedges will be inserted into the joints. I also take the time

to mark each part so they go back in the same places during final assembly.

Disassemble the stool and cut kerfs into all the legs and stretchers for wedges. Often, I'll do this with a dovetail saw if there aren't too many, or at the bandsaw if I have more. Just don't cut the kerfs too deep or you'll see them on the insides of

the joints after assembly. Esherick typically used wedge material of the same colour, but I wanted more contrast; I used walnut. At the bandsaw, make a series of wedge-shape cuts into a scrap, then cut them off in groups. Don't worry at this point if the wedges are too wide for the joints; they can be trimmed just before insertion.

Use a leg and stretcher to mark off the width of the wedges. Using an offcut as a cutting board, trim each wedge to width with a sharp chisel. A touch of glue on the tip of each wedge ensures it stays in place once driven home.

Using a small acid brush, glue each joint and begin by assembling the base. Next, glue the leg-to-seat joints. Tap the seat into place, checking to make sure it remains parallel to the floor. This is easily done by measuring to the flat part of the seat's underside and adjusting until you get the same measurement.

Install the wedges, then use a file, chisel or sander to trim the joints flush and flow them into the legs and seat.

Dry-fit. Rough assemble the stool and trim the tenons close so the wedge placement can be marked



Time to back out

When my stool was fully assembled, I looked at the overall appearance. It had achieved all the goals I set forth at the beginning of the project: It was light in appearance and harkened back to Esherick's own stools.

The concern at this point was how a back would change the balance. The seat was larger

than many of Esherick's stools, but still on the small size for a seating piece with a back.

After mocking up a few different versions, some taller and others shorter, I decided a back was only going to make the stool look clunky and heavy, so I dropped it.

All that remained was levelling and finish

prep. I placed the stool on the tablesaw and made shims to temporarily level it. Using a 12mm scrap of plywood, I scribed around all four legs and trimmed them off with a handsaw at the bench. If your stool still doesn't sit perfectly level, a little fiddling with a chisel or rasp makes short work of that.



Wedge it. Taking time to mark the placement and orientation of each wedge will save frustration later



Walnut wedges. At the bandsaw, cut wedges from a scrap



Split wedge. Using the stretchers and legs as a pattern, it's easy to trim the wedges to final width

Time to finish

Finishing in the Esherick style isn't very difficult at all; he used tung oil. After sanding the entire stool to 180 grit, I rubbed on a few coats of tung oil and allowed it to fully cure between coats. I also lightly sanded between coats with 320 grit abrasive and wiped the entire stool down with a tack cloth prior to subsequent coats. At the end, I used '0000' steel wool to rub out the finish, then applied a light coat of paste wax. The wax isn't

necessary on an oil finish, but it leaves the surfaces smooth and tactile.

Not only were Esherick's stools and other pieces very touchable, they were fluid. It's that fluidity that I sought in my stool. I even found it in the design process. Stepping outside my regular sphere of work helped me remember not to get locked into one train of thought or one method of work. Sometimes it's liberating to go where the work and the wood take you. *F&C*



Level it. Shim the stool on a level surface and use a scrap of plywood to scribe all four legs. Saw to the lines and it might just be perfect the first time

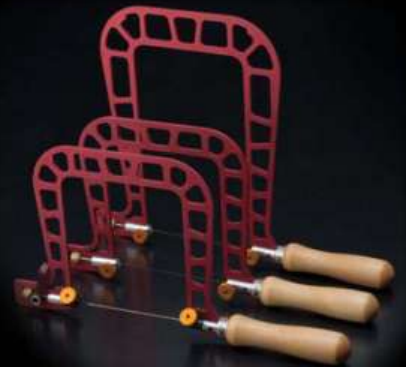


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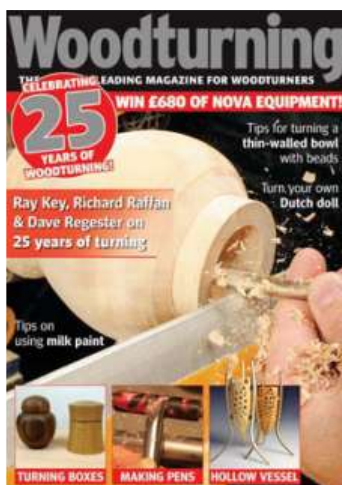
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PHOTOGRAPHS BY KIERAN BINNIE

Our correspondents... Workshop archaeology

Kieran Binnie takes us through the contents of a recently inherited tool collection and tries to unravel the story behind the owner and some of its curious contents

Although there is a reassuring lack of ancient spike filled pits under my bench and no nest of vipers guarding my tool chest, I have recently found myself drawing inspiration from my favourite childhood *Indiana Jones* movies and assuming the role of a workshop archaeologist – sadly this is where the Harrison Ford comparison ends.

Thanks to a family friend, I recently came into possession of a large batch of tools being disposed of in a house clearance. I had no idea what was included in this collection, so when several large boxes were unloaded from the delivery van, I was curious to discover what they contained. A pristine condition Smith

combination lathe/bandsaw/disc sander machine was the undoubted centrepiece, which means that I can finally build that pair of Roorkee chairs I've been promising myself. The rest of the collection was a jumbled assortment of smaller items in several battered hardwood boxes and I have been slowly sifting through these crates and working out exactly what they contain.

Tool collection contents

I didn't know the former owner of these tools, nor do I know anything about him other than what his tools tell me, and so I have started a process of workshop archaeology: piecing together an impression of another craftsman from – what is probably just a selection of

– his tools. In doing so, the idea of heritage – about which I have written before, both in this magazine and on my blog – www.overthewireless.com – started to call its siren song, as I began wondering what a future woodworker and workshop archaeologist would surmise from the contents of my tool collection. If all that is left to tell the story of my craft is my tools, then what would they say?



This mystery tool has real character and has obviously seen heavy use. I wonder what my mystery craftsman used it for?

Over the years, *F&C* has acquired readers from all four points on the compass and since going digital in 2013, that trend has increased. You can find us anywhere in the world with a link to the web. As the content of the magazine is a true reflection of our readership, we've decided to introduce a new style of article that will take us on

a workshop tour of the globe. Our reporter this month is luthier Kieran Binnie, who has written on various topics so far, but here he tells us the fascinating story of inheriting a tool collection and trying to unravel the story of its owner. Hopefully reading this will make us ponder our own journey in furniture making and why we do what we do

I don't think the contents of my tool collection would surprise anyone. It is very obviously focused on hand tool work and save for a couple of specific lutherie tools, most of my tool collection looks like it was lifted from the pages of the *Joiner & Cabinetmaker* or any other traditional handwork text. So you will find the standard issue hand planes, chisels, marking and measuring tools as well as a nest of saws. Only the bending iron, purfling cutter and fret files may give any indication that I am predominantly a luthier rather than a cabinetmaker.

A varied collection

In contrast, the collection I recently acquired makes for a varied and fascinating subject. The vast collection of router bits, in addition to the Shopsmith machine, allows me to infer that the previous owner was predominantly a machine-based woodworker. He was also, I think, a metalworker. There is an endless supply of round and square steel stock, milling bits and numerous metal working tools, including some wonderful knurling tools and parallel jawed pliers. But some of the crates hold more unexpected wonders. A bag of small brass letter blocks for use in a printing machine, a pyrography machine and a 75mm sweep brace, were some of the more unexpected finds buried in one of the crates. It is hard to picture this craftsman: was he accomplished in many crafts or was he a spirited dabbler? What was his work like? Whatever the reality, the sheer breadth of his interests leaves me wishing that I could have talked to him about his craft.

H.O. Studley

By sheer coincidence, my excursion into workshop archaeology came just after I had finished reading *Virtuoso*, the recent book on the tool cabinet of American piano builder H.O. Studley, published by Lost Art Press, 2015, and my experiences of trying to piece together a picture of an unknown craftsman reminds me of the work that Don Williams undertook in researching *Virtuoso* – although my workshop archaeology is on a far less grand scale. Like my mysterious craftsman, we know little about Studley, but in *Virtuoso* Williams' forensic examination of Studley's iconic tool cabinet and the tools it contains, together with solid historic research, builds a picture of the elusive craftsman who built and used the tool cabinet. It is a fascinating read, both for the intricacies of the tool cabinet, which in many ways resembles a 3D puzzle, and also for the light it sheds on a craftsman who has been obscured by the tool cabinet he clearly intended to be his legacy and the expression of his craft. As a book examining the very highest levels of craftsmanship and workshop archaeology, *Virtuoso* comes highly recommended.

A continuing heritage

Very few of us ever achieve the enormous level of skill that H.O. Studley possessed, but most of us will create at least one piece of work which will outlive us. And like the owner of my recent acquisitions, we will leave behind a tool collection that others will



A handful of small letter blocks, but what sort of printing machine do they fit?

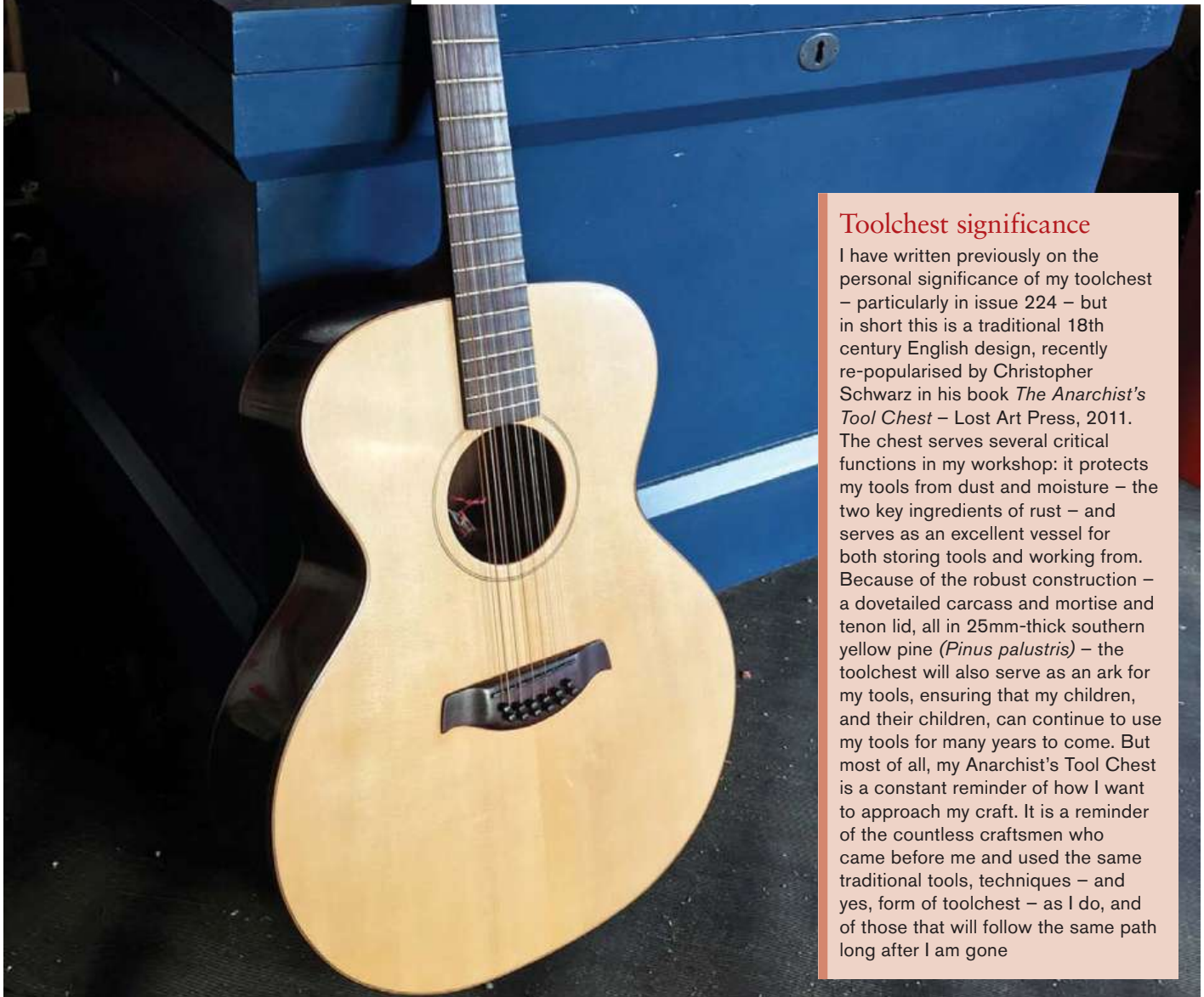


Virtuoso is a stunning insight into the tool cabinet and history of the elusive H.O. Studley

pick through and make use of, continuing the heritage of woodworking. I find this very comforting; the idea that my tools will continue to be used to create long after I am gone. At my old martial arts club there was a tradition of never washing your belt, because the dirt it picked up represented years of hard won experience and training. I like to think that the patina and wear on each of my tools carries a similar message for future owners to interpret and decode.

So, the next time you lift the lid on your toolchest – or open the door to your workshop – consider what the contents would say about you and your craft to a future workshop archaeologist. *F&C*

My Anarchist's Tool Chest keeps my tools safe and reminds me everyday what it is I am trying to achieve in the workshop



Toolchest significance

I have written previously on the personal significance of my toolchest – particularly in issue 224 – but in short this is a traditional 18th century English design, recently re-popularised by Christopher Schwarz in his book *The Anarchist's Tool Chest* – Lost Art Press, 2011. The chest serves several critical functions in my workshop: it protects my tools from dust and moisture – the two key ingredients of rust – and serves as an excellent vessel for both storing tools and working from. Because of the robust construction – a dovetailed carcass and mortise and tenon lid, all in 25mm-thick southern yellow pine (*Pinus palustris*) – the toolchest will also serve as an ark for my tools, ensuring that my children, and their children, can continue to use my tools for many years to come. But most of all, my Anarchist's Tool Chest is a constant reminder of how I want to approach my craft. It is a reminder of the countless craftsmen who came before me and used the same traditional tools, techniques – and yes, form of toolchest – as I do, and of those that will follow the same path long after I am gone

This 12-string guitar and my toolchest are all that is needed to piece together the story of my craft



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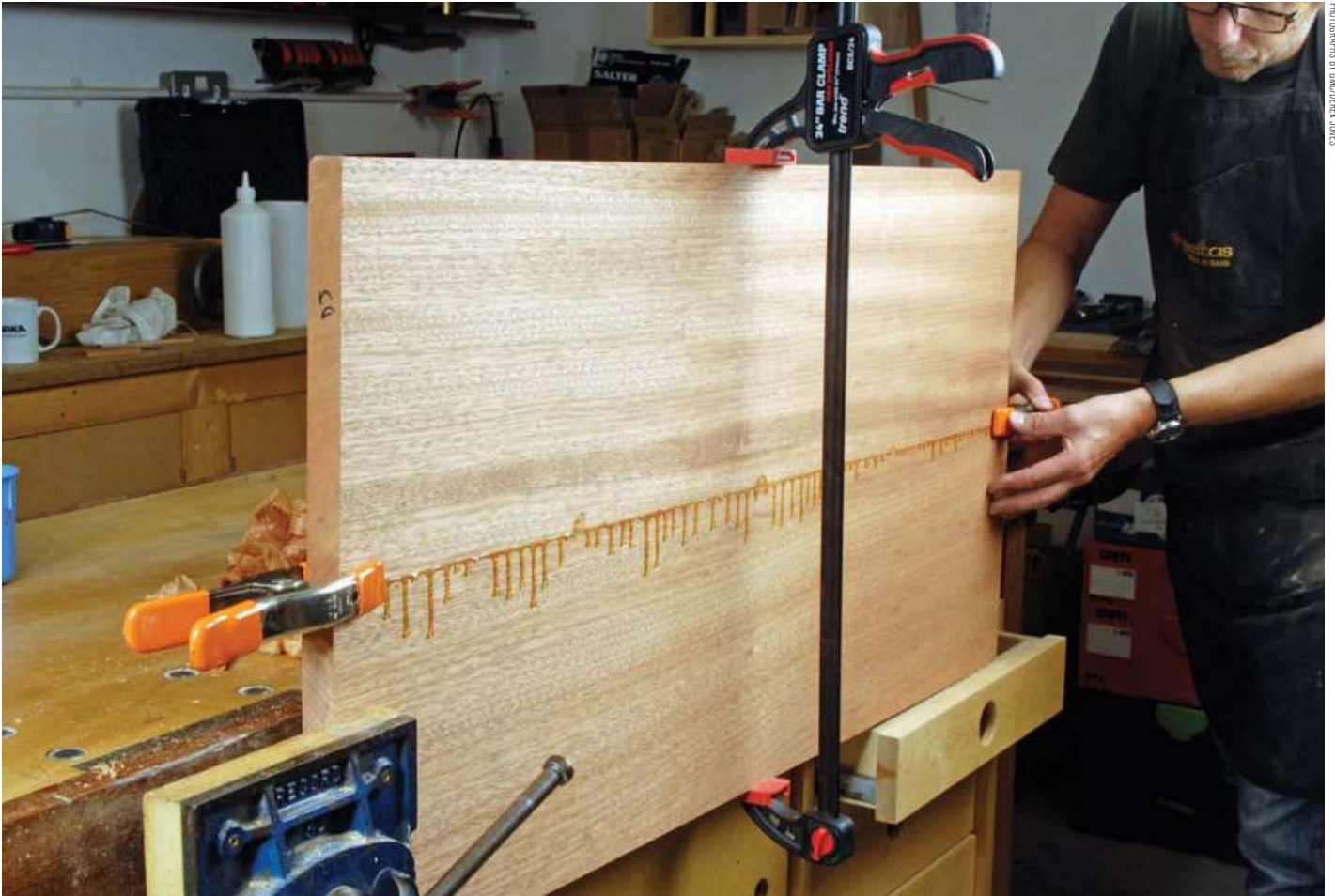
* All prices below include Pro STC & TWE. Substantial price reductions available if standard solo outrigger table required. All prices ex works. Carriage extra.
Forsa 4.0 / 4.1 - tail lift required. Forsa 8.0 / 9.0 - fork lift truck required. P3 models inc extra support table & clamp

Model	Product Group Series	Specification Includes (as per quoted price)	Mc HP / Scorer / Volts	Depth of cut & length of stroke	Price Exc VAT - Plus Carriage	Price Inc VAT - Plus Carriage
Forsa 3.0	Professional	Inc Professional STC + TWE	5.2 / - / 415v	87 mm x 1.6 m	£2,166.67	£2,600.00
Forsa 4.0 - P2	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 1.6 m	£2,995.00	£3,594.00
Forsa 4.1 - P2	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 2.1 m	£3500.00	£4,200.00
Forsa 8.0 - P3	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 2.6 m	£4650.00	£5,580.00
Forsa 9.0 - P3	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 3.2 m	£4,800.00	£5,760.00

STC = Sliding Table Carriage. TWE = Table Width Extension. TLE = Table Length Extension. P3 models inc extra support table & clamp.

Edge jointing for sprung joints

One setting on your jointer and
one clamp is all it takes to create
perfect edge joints every time



PHOTOGRAPHS BY GUNTERDECK, JONES

On the face of it, a bog standard edge joint should be the easiest joint to produce with hand tools. After all there is a tool, namely the jointer, designed to make light work of the task. However, as we know with a lot of things in life the simpler a task looks the harder it is to master.

Before we look at techniques to create the joint let's consider a few basics to understand how it works. In most cases we would use the edge joint to join multiple boards together to achieve a wider single board. These might be used to create carcass panels, inset panels for doors, worktops or shelves. Typically, the joints do not come under great stress, so as long as the joint is sound, no other mechanical device is required. Creating the joint accurately, dabbing some glue and adding a little pressure to hold the mating pieces together while it dries, is

sufficient to complete the process. Ideally any requirement to mitigate the effects of dimensional changes should have been factored in to the design. For example, breadboard ends might be best anchored at one edge and left floating at the other. Inset panels will be a dry fit and worktops will be held in place with buttons. The most important detail, of course, is having selected your material, ensuring that it's stable in the first place.

Prime cuts

The structural integrity of any wooden form will be determined, first and foremost, by the timber you have selected and although wild and pretty grain is nice, it may not turn out to be the most reliable platform. How the timber is harvested from a log will affect the mechanical properties of the boards. Quartersawn is generally regarded as being

the most stable. You can identify it easily on wide boards by looking at the ends: the annular growth rings will pass from face to face anywhere between 60 and 90°. The grain will run in straight lines down the face and on Douglas fir (*Pseudotsuga menziesii*), for example, will pass for a good pinstripe.

Some people say the only true quartered stock comes from riving, but sawmills can produce the equivalent and refer to this as rift sawn. Be warned though, it's rare, wasteful and therefore, expensive. Other cuts such as crown and through and through – plain sawn – are far more common. Mechanically speaking, they have a quirky nature and you should be prepared to work with them if you are to avoid surprises later on. These cuts are easily identifiable by the cathedral – or crowning – pattern the grain has on the face of the board. Look at the end of the board and the chances are that you

will notice the same annular ring entering and exiting from the same face.

All timber has a self-levelling gene grown into it, so learning to predict its every move is going to help you build better furniture. If you start out preparing for 'when' rather than 'if' it moves, you'll be on the right tracks. All this is very interesting and we'll look at this another time, but for now I'm going to show you how to set up your jointer plane to create perfect edge joints that will only need a single clamp to hold them together when it's time to glue up.

Benchmark your workshop

You can introduce a level of consistent quality control to your workshop quite easily with a couple of basic tools, that should set you back less than £75; a reliable straight edge and a set of feeler gauges. My quality control kit is made up from a 600mm long Starrett 380-24 straight edge and a Moore & Wright 911 set of imperial feeler gauges.



Straight edge and feeler gauges are all it takes to calibrate a lot of the tools in your 'shop

These two items are used to benchmark flatness on everything from handplanes to machine tables. The theory being that the $\pm .0002$ " per foot accuracy of the straight edge is well within the acceptable tolerances for



Aim for as flat as you can and use this as your 'shop benchmark

the type of work I do. Beyond the setting up the same straight edge is used to assess the flatness of worktops, edge joints and a whole range of other tasks with an acceptable level of consistency.

Cheap trick

It may sound counterintuitive to recommend a cambered blade on your jointer and I've had many people frown at the idea until they've tried it, but I've found it to be the most effective way of producing consistently good edge joints. What's more, if you are a frugal woodworker and have no desire to add to your plane collection a No.5 jackplane could double up as a great all-rounder; scrub, smoother and jointer. My preference for a cambered over a straight blade will become obvious later. For now let's look at how to produce one quickly and accurately.

Start out with your coarsest stone and your blade secured in your preferred honing device to the secondary bevel angle of your choice. Mine is typically in the region of 30° . Grind a flat edge with consistent pressure across the width of the blade using the full width of the

stone. Check it for straight, preferably as square to the edge of the iron as you can, then return to the stone. Continue with a set number of strokes applying pressure to one edge of the blade as you work. On my 700 grit Bester's this turns out to be four or five strokes – yours may be different. Now move to the other side and repeat the process with the same number of strokes. Inspect the edge with a reliable engineer's square to make sure the camber is central to the blade. Across the width of a $2\frac{3}{16}$ " blade you're looking for less than 1mm drop off at each end.

With this achieved continue through your range of stones and finish up by removing the hairline bevel from the face of the iron. If you like the David Charlesworth method then be sure to gently arc your iron as you move it down the ruler.



Think of your blade as having three zones



Create a straight secondary bevel



Work one side with a set number of strokes



Repeat the same number on the other side

The right jointer



A while back, I bought myself a Clifton No.7 intending to improve my long board jointing skills. There's a definite correlation between tools and their users and though it's an excellent plane, the No.7 and I struggle to get along. To plane accurately you need to combine concentration and strength if the tool is to do your bidding. Fighting a brute in the process will wreck your concentration and tire you out. Invest in your technique instead for it will trump everything else.



Repeat the process to your highest grit stone and remove the burr

A single setting

With your plane reassembled, support it upside down where you can still get access to the controls. Find yourself a small block of wood about 5mm thick and 60mm long, preferably of the same material that you are working with. Use it to produce some test cuts at either side of the blade. Adjust your lateral blade setting and blade projection to produce identical cuts at both edges of the blade. Then, withdraw the blade so you have a zero cut at each edge and an acceptably fine cut in the centre. When you're satisfied don't make any further adjustments.



Calibrate your blade setting with a test block



Aim for a zero cut at both sides



Set the maximum shaving to occur at the middle of the plane

Squaring the edge

To create a good edge joint we need to make sure the two mating edges are planed to a combined angle of 180° in relation to the face of the board. For example, this could be 89° on one board and 91° on the other, although that could make clamping them together a little tricky. The simplest option of course is to aim for 90° on both. I prefer this option to planing

two board edges at the same time unless the stock is particularly thin.

For now we're not too concerned about the state of the edge along its length, although the straighter it is the better. What we need to focus on is the centre of the edge and the position of the plane as it travels along it. Begin by taking full-length and full-width shavings with the plane

tracking along an imaginary centreline. Check the back of the plane when you start and try not to skew. Now test the edge with a square. If it's high on one edge make a pass with the plane off-centre towards the high side. Continue making passes until the high edge has been levelled. At no point adjust the lateral lever on your plane.



Align the plane with the middle of the board edge



Check for square



Offset the plane to compensate



Repeat the pass to achieve a square edge

Wear your heart on the outside



Annular rings enter and exit on the same face

Not all timber movement is bad. Timber that displays a pronounced heartwood down the centre of the board will typically want to cup across its width so the semi-circular annular rings begin to straighten out. Placing adjoining boards with their heartwood facing the same way will compress edge joints along that face when the inevitable happens. Make this the external face on your carcass and drawer fronts and the effect will drive the corners together where they meet.

Levelling off

Creating a flat line joint with your jointer or any other plane come to think of it isn't as straightforward as you might think. What foxes people is the notion that a long flat plane will not produce a long flat edge simply by making full-length, full-width shavings. What it will generate is a convex edge to your board. The longer the plane is and the finer the shaving, the finer the degree of convexity. Time to deploy the benchmark straight edge.

The simplest way to gauge a flat surface is by feeling for contact or friction between the timber edge and the straight edge. Place the straight edge on the timber and hold it lightly at one end. Gently move it side to side. If it feels at all graunchy then you have a straight edge. If it rotates easily then you have a high spot. Make a note of that high spot and move the straight edge along the board to find more high spots.

On this example, about 900mm long, the middle of the board was one long high spot indicated by the red dots in the photographs. To remove a high spot take a series of progressively longer shavings from the middle of the board extending beyond the area of high spots, but never to the full-length of the board. If you wish you can retract the blade slightly and make a single full length pass with the plane positioned centrally on the edge of the board.

The truth about jointers

At the start of the cut we naturally push down on the toe with our forward hand. As the blade makes contact with the board we instinctively adjust to an even distribution of downward force through both handles. On a long plane this is transmitted to the farthest point away from the blade along the sole of the plane; the point of contact being the back of the board as it registers with the heel of the plane. Because of the amount of material removed in the shaving the plane will present itself to the board at a slight angle. As the plane advances, the blade rises producing a finer shaving in the process. The plane will not be at a consistent angle in relation to the

board until the entire sole of the plane has registered with the board. At this point and only at this point will the plane be capable of producing a consistently thick shaving. Hence the high spot in the middle of the board.

As you reach the end of the pass human dynamics take over and we instinctively apply greater force once again at the front of the plane creating a slight downward path – remember the nose of our plane is in mid air – and transfer this force to the rear handle to complete the stroke. You can make as many full length passes as you like in this way and it will still create a convex edge.



Touchy-feely is better than daylight to identify high spots – marked in red



Work right up to the ends of the board



Take progressively longer strokes between the high spots – green to green...



... tracking the plane in the middle of the board edge



A final pass from beyond the high spot area should do the trick

Sprung joint

A sprung joint is one that has been created with a slight hollow towards the middle of both boards. The thinking behind this is that boards will lose moisture more readily at the ends and, therefore, spring apart. Hollowing the joint in the middle forces the ends together tighter compensating for any movement in the future. Is this necessary every time you make an edge joint? No. I would reserve it for panels that are completely exposed when finished or those that are moulded around the perimeter such as raised panels for doors.

Because of the amount of material being removed I prefer to use a smaller plane for this task and one that you can set to take the finest shaving imaginable. A block plane or similar will do nicely. It's a similar technique to the one used to remove high spots. Start at the middle of the board and take increasingly longer shavings towards the ends. For boards up to around 1m in length create a hollow of around .004in or the thickness of a piece of paper.



Short passes for sprung joints



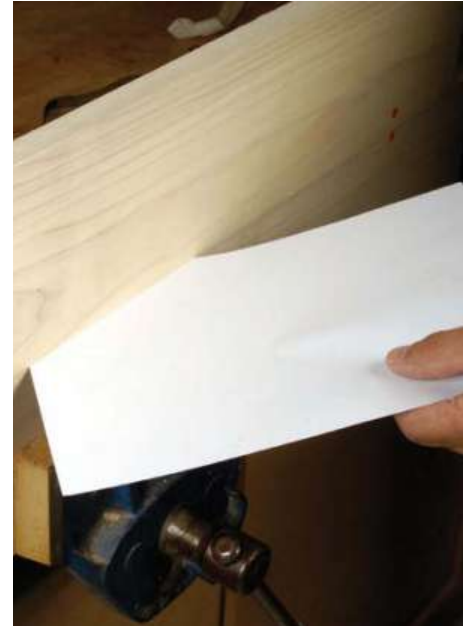
Start and stop short of the ends of the board



Choose a plane that will take the finest shavings you can



.004in is a good benchmark



A sheet of standard copy paper works just as well

Conclusion

There are several benefits that make working with a cambered blade easier than working with a straight edge one. Once the plane is sharp and set there's no need to faff around with lateral adjustment to compensate for a high edge, the alternative being to somehow tilt the plane to one side for the duration of a pass to level things off. That's a risky manoeuvre in anyone's language. In some cases you'll find that just the one clamp is required to hold the boards together while the glue dries, although it won't hurt to pinch the ends while you apply some pressure. What I haven't mentioned yet and you've probably worked it out by now is that with practice you can now spring the joint in both directions. I'd call that a win win. *F&C*



A single clamp is all you need while the glue dries

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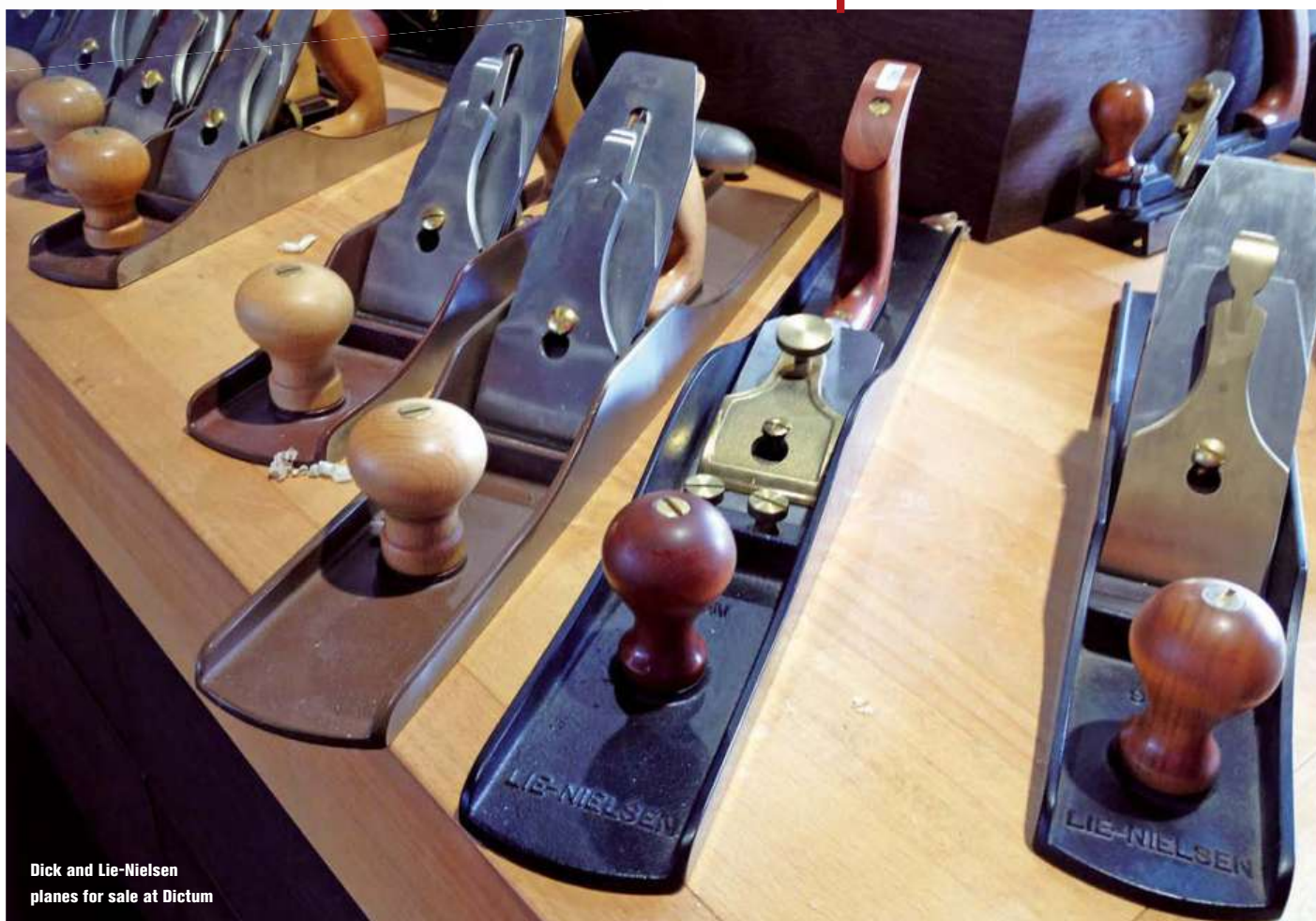
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Our correspondents...



PHOTOGRAPHS BY JOHN LLOYD

Dick and Lie-Nielsen planes for sale at Dictum

Buying tools – East vs West

John Lloyd discusses the issue of buying tools and whether West really is best. As he goes on to show, that could all be about to change as the East steps up to the plate

Now don't get me wrong, I'm as enthusiastic a user of the better makes of plane as the next woodworker; I know the value of a well-tuned plane; I aspire to owning a Sauer & Steiner infill plane; I know that a 'Bedrock' bench plane is inherently better than a 'Bailey' pattern and I love a bit of high quality knurling and a bronze lever-cap, but things like 'well-tuned' and 'Bedrock' and all those other nice things have always come at a price and this is a price that not everyone

can afford. There are of course other cheaper planes on the market, the likes of Stanley and Anant, but with these cheaper planes you definitely get what you pay for. I'm also aware that there are versions of those high quality planes that are rather more competitively priced and are being made some distance to the East of Sheffield or Maine. These planes have been available for a while now, I had a play with a Quangsheng block plane a few years ago when they first appeared here and I remember thinking

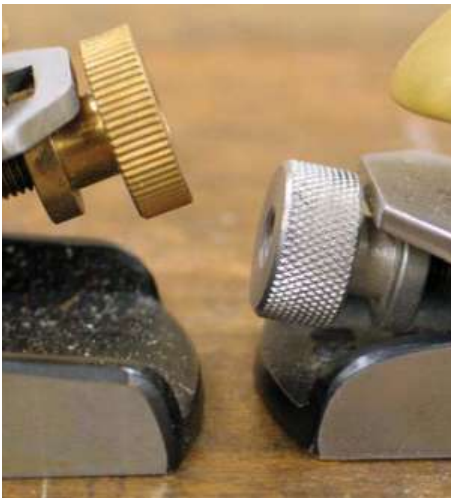
firstly that it bore a striking resemblance to a Lie-Nielsen, and secondly that it worked surprisingly well.

Another thought I had was that this sort of Eastern 'plagiarism' really just wasn't cricket and should obviously be spurned, but is this necessarily a sensible stance to take? Oddly, it seems to be considered a rather honourable thing to spend many hours resurrecting a rusty old second-hand Stanley or Record Bailey pattern plane, but there is always going to be an element of silk purses

and sow's ears about this endeavour. So, putting any prejudices aside for a moment, should we be looking at Chinese planes as a viable, well priced option when putting together a tool kit?

A visit to Germany

During a recent visit to teach at the Dictum workshops in Munich, I had the chance to have another look at some Eastern planes, which they stock in their shop and use in their workshops. It occurred to me that the main premise of Dictum's being seemed to be one of valuing excellence, their whole shop with all its glass cabinets and sexy lighting oozes quality; they stock wonderful Japanese tools, knives and gardening equipment – including gardening wellies



It would seem that lovely knurling comes at a price, but at the end of the day it's just aesthetic



Spot the difference – Quangsheng and Lie-Nielsen

with a separate big toe, which will apparently 'improve the wearer's sense of balance and circulation' – and a pretty comprehensive range of tools from Lie-Nielsen and Veritas. But in among these well-known, high quality, tools was Dictum's own range of planes and chisels, which are sold under the 'Dick' banner. Apart from the original, rather unfortunate, brown paint job on their planes, which is now thankfully being replaced with the new, rather less visually disturbing, reddish colour, these own-brand planes look good and work really well. So what's going on here? The big difference in the own brand planes is of course the price, but does the much lower price necessarily mean a poorer quality product?

The Chinese have a reputation for copying



Planes from China can produce first class results



The very lovely Dictum shop in Munich



Quangsheng plane in use

things well, which is perhaps why the Quangsheng looks so reminiscent of a Lie-Nielsen, but they also have a reputation for being cheap – and sometimes, nasty. But not all planes from China are the same, of course, Dictum have been producing planes for about 70 years. 'Dick' planes are not just generic 'Chinese planes', they design and specify everything about their planes, but to achieve a good quality product at a competitive price, they are currently made in China, like many leading manufacturers, including Nike, Apple, etc. The list is endless.

Three main materials

Cheap labour, good productivity, huge efficient factories, state of the art machinery – CNC, etc. – all make a huge difference to the manufacturing costs but is there any other major difference?

There are three main materials used to make plane castings: cast iron – the traditional material that all those thousands of original Stanley and Record planes were made from, cheap to produce and casts very well but it's brittle and can break. It is still used by Stanley, Anant & Clifton, although Clifton castings are stress relieved making them more stable; ductile iron – the material of choice for Lie-Nielsen and Veritas, requires more work, which makes it more expensive to produce, but it's stable and less brittle than cast iron and finally, cast steel, which is used for many of the planes produced in China. This alloy is extremely tough and relatively cheap to produce, but casting steel can only be performed by special foundries. One of the main stated differences between these materials is that cast steel doesn't contain the carbon that the others do, which means it's less 'slippery', but a little paraffin wax swiftly negates this difference.

Chinese planes

For some time I've thought that the increasingly high price of the high quality North American and Northern England market leaders could perhaps be making woodworking something of an elitist pastime, so the availability of a considerably cheaper, high quality option must be good news. So where do I stand now? I suppose in order of priority, I would like an accurate casting with a good blade that works well on difficult timber. If I could afford it, I would go for something with a bit of bronze and some fine, crisp knurling, but on a tight budget, unless I valued the romance of working with old tools above performance, I would certainly snap up one of those better quality planes being made in the People's Republic of China – it would be foolish not to, wouldn't it? *F&C*

Over the years, *F&C* has acquired readers from all four points on the compass and since going digital in 2013, that trend has increased. You can find us anywhere in the world with a link to the web. As the content of the magazine is a true reflection of our readership, we've decided to introduce a

new style of article that will take us on a workshop tour of the globe.

Our reporter this month is a bespoke furniture maker who was our correspondent back in issue 225 and 228, where he discussed CAD vs hand drawing. Here, he turns his

attention to the much debated topic of buying tools from China, which are often labelled as cheaper, less well made equivalents, but could all that be about to change? Ladies and gentlemen, our global correspondent this month is John Lloyd

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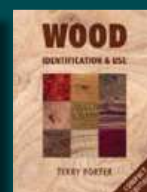
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Art Nouveau coffee table base – part 2

In the final part of this article, Dennis Zongker applies the marquetry decoration to his Art Nouveau coffee table top

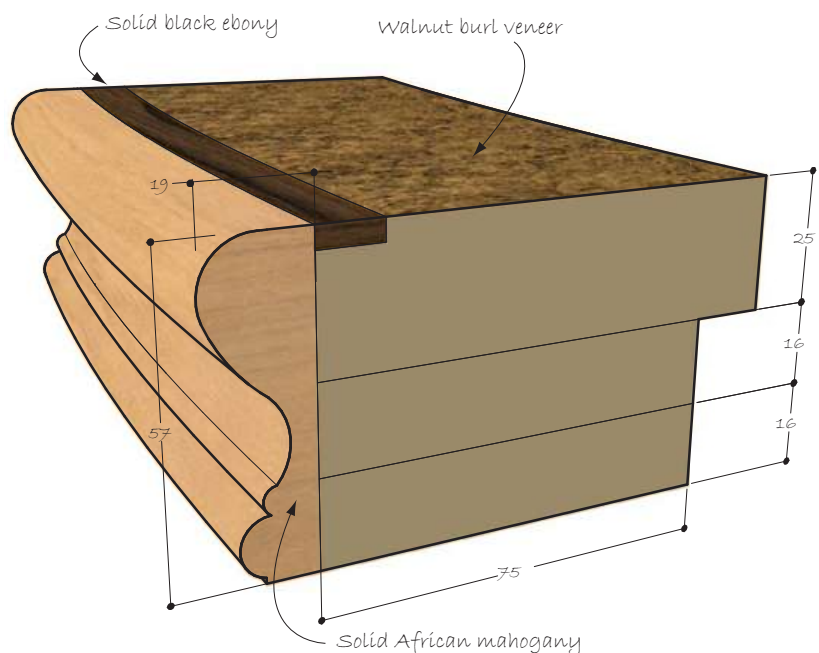


PHOTOGRAPHS BY DENNIS ZONGKER

In the first part of the article I showed how to carve the Art Nouveau table top. Here, I'll talk about making the coffee tabletop, which has an elliptical shape. The elliptical shape of the top really helps to add to the overall Art Nouveau style.

The marquetry on the top is of a scene of a lake and trees reflecting off the water. When creating the marquetry design, a lot of research went into finding the right veneers to achieve a natural lifelike picture. I used many different styles of veneers and combined them together. I will show you how I cut the packets using two different styles and combine them together.

After the marquetry is completed, the next steps are to bend the solid ebony (*Diospyros spp.*) inlays, then rout and inlay them into the top. I decided to use solid mahogany (*Khaya ivorensis*) for the top edges. To finish and stain the coffee table, the goal is for only the base and top edges to have a dark colour that still show the beauty of the wood grain. I found this was a very enjoyable piece of furniture to make and I hope you do too.



The veneer

For cutting out the top you need to use a piece of veneer core plywood measuring 25mm thick × 1,220mm wide × 2,438mm long and add a side piece for the width at 254 × 330 × 2,133mm. You can then rout and glue in a loose spline measuring 6 × 25mm wide × 2,133mm long to joint the two pieces together. Next, cut out the 1,525 × 2,032mm elliptical shape with a shop-made router jig. Once you have the top routed out, you can use it to layout the paper to draw in the marquetry design.

The veneer I used for the sky and water is called 'freak maple burl veneer'. To lighten up the water reflection side of the marquetry, I brushed on Klean Strip A&B wood bleach solution on both sides and hung the veneer off the ground, from a ladder so it will dry evenly overnight. After the veneer is dry from the bleach, seam the two veneer pieces together for the sky and the bleached water. Use blue painter's tape on the glue face, then flip it over to use gum tape to seam together on the face side of the veneer. This won't be seen until after the marquetry has been glued to the substrate.

Using a large piece of tracing paper, the same size as the top, draw in the sand, bank, grass and the horizon lines. All of the veneers will be cut using a scalpel. This method is called the 'window method' for cutting marquetry.

The first two pieces to be cut and fitted together are the sky and the water veneer. Using the tracing paper horizon lines, cut out

the bleached water veneer using a scalpel. Keep the blade as straight as possible and take two or three passes at approximately 25mm strokes until the water line is cut out, then place the bleached veneer over the top of the sky veneer and tape them together using blue painter's tape. Use your scalpel and follow the veneer edge to cut out the sky veneer using the same method of cutting two or three passes using light pressure, letting the blade do most of the work.

Next, cut out the grass section of the tracing paper and place it on top of some myrtle burl veneer, cutting out each section using a scalpel. Using the tracing paper allows you to see through to the veneer, which means you can select the best veneer pattern and colour for the marquetry scene.

Once you have cut out the background grass veneer, move on to cutting out a darker shade of green veneer that sits directly underneath the trees. By placing the darker patches of green on top of the lighter background grass veneer, use your scalpel and follow the edge of the veneer to cut out the waste veneer and insert the darker shade. Next, place the grass veneer over the bank veneer, which is a quartersawn etimore, to where the grain direction will be in many different angles coming out of the grass to re-assemble the look of a realistic nature scenery. Continue to use the window method until the bank is completed along the whole edge of the lake.

For the sand of the island I used an arodire crotch veneer. This fitch of veneer

had a perfect brownish hue with light and dark shades, which gives it the realistic resemblance of sand on a beach. Again, use the window method to cut out the sand.

After you've finished cutting the island veneers, use painter's tape to keep all of the pieces together, then flip the island over and use water gum tape to connect all the pieces of the island. Then, flip it back over and remove the painter's tape.

Now to insert the grass, bank and sand onto the sky and water background veneer and tape it into the correct location. Using a scalpel, use the window method to insert the entire island into the background. The next step is to flip the entire piece of veneer over and apply the water gum tape.

The 'window method'

The window method is a technique that uses only a scalpel to cut the veneers. First, a template is used to draw a design onto the background veneer, then the template design is cut out from background veneer, creating a window. The window in the background veneer is then filled with another veneer, called the insert. Using the window method to cut marquetry takes a bit longer than other techniques, as there's a lot less preparation time involved. It's also a good marquetry method for cutting straight lines with a high degree of accuracy



1 Cutting out the top of veneer core plywood



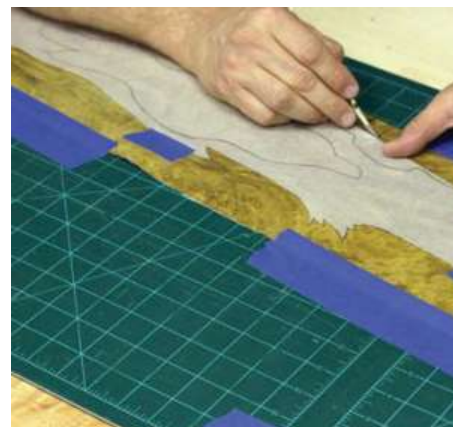
2 Hanging the veneer off the ground, from a ladder so it would dry evenly overnight



3 Using the 'window method' is a great way of drawing in the marquetry designs



4 Here I'm cutting and fitting together the sky and the water veneer



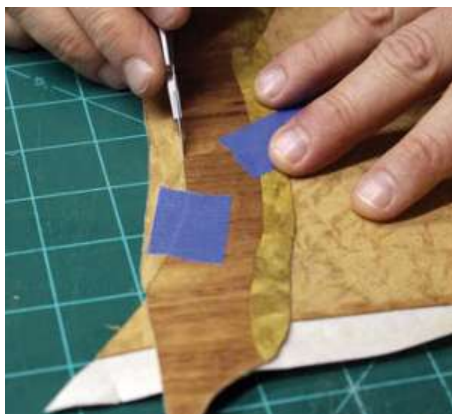
5 Cutting out the grass section of the tracing paper



6 Cutting out a darker shade of green veneer that sits directly underneath the trees



7 Placing the grass veneer over the bank veneer, still using the window method



8 For the sand of the island, I decided to use an aroid crotch veneer



9 Using painter's tape is an ideal method for keeping all of the pieces together



10 Flipping the entire piece of veneer over and applying the water gum tape

The packet method

The method I will be explaining for cutting the trees and oak leaves is very similar to the Boulle technique. This style of preparing and cutting is easy to learn and is also an excellent way to produce several different copies with just one packet. For this large top there is a total of nine packets to produce and insert into the background veneer. I will be explaining this packet method for just one tree – the smallest single tree that is by itself.

To prepare the packet, cut two pieces of 20mm-thick plywood measuring 324mm wide × 405mm long. The plywood will be used as a cutting template and also as a clamping caul. There will be a total of five

different pieces of veneer measuring 324mm wide × 405mm long to equal one packet.

- Three pieces of laurel burl for the tree leaves
- One piece of ziricote for the tree branches and trunk
- One piece of scrap veneer for gluing the cutting template to that goes on top of the packet

Note – by purchasing three different fitches of laurel burl, each one has a different figure and colour to give the trees a natural appearance with light, medium and dark shades. Next, use a

cutting mat and a scalpel, then place the cutting caul on top of the veneer. Use the caul as a guide for the scalpel and cut out three different pieces of the laurel burl, then do the same with the ziricote and one with a scrap veneer for the template cutting sheet.

Next, brush hot animal hide glue onto the face of the veneer, then place a piece of craft paper to the veneer using a rag and pressing the paper to the veneer. Then, place the veneer in between the two plywood cauls and set a 35lb weight on top of the caul; this will have the effect of flattening the veneer while the glue dries. Repeat these steps for the remaining veneer and also the cutting template to the scrap veneer.

The reason for gluing the paper to the veneer is to flatten the veneer and prevent any chips or cracks while cutting on the scrollsaw. Hide glue is the best glue for this step because it doesn't soak very deep into the pores, is less brittle and doesn't dull your blade as quickly.

Nail the packet together by placing the four pieces with the paper face down and the template drawing face up. Place all five sheets on top of one plywood caul with a centre weight placed in the centre; this will keep the packet from moving. Start in the centre then nail outwards to the edges. Use a pair of needle nose pliers to hold the

small 12mm long 20-gauge nails in place and then nail through the packet and into the plywood caul until the head is flush with the template. Use a narrow slotted screwdriver to pry the veneer packet off the plywood caul, then place the packet upside down on a hard, flat surface.

Take side-cutting pliers and snip off the pointed tips of each nail leaving just a tiny bit of the nail protruding. Use a hammer to tap the snipped nails flush with the bottom sheet of veneer; this will create a rivet that holds the veneer packet together.



11 Brushing hot animal hide glue onto the face of the veneer



12 Flattening the veneer will prevent any chips or cracks while cutting on the scrollsaw



13 Use a pair of needle nose pliers to hold the small 12mm long 20-gauge nails in place



14 Take side cutting pliers and snip off the pointed tips of each nail, leaving just a tiny bit of nail protruding

Cutting the packet

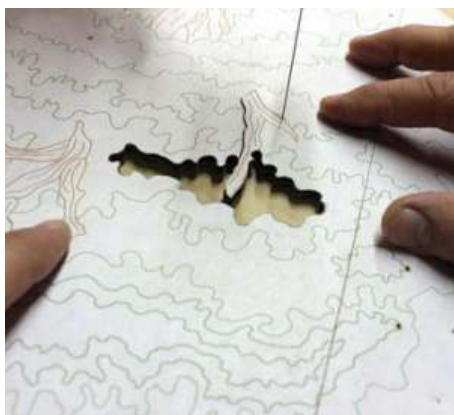
To cut the veneer packet I use a 510mm variable speed scrollsaw at its slowest setting, which is 400 strokes per minute. I use an Olsen 125mm 2/0 jeweller's metal-piercing 56tpi scrollsaw blade and start by drilling a 1.5mm diameter hole in a few places where needed into the packet, then feed the blade through one hole in the packet. It's best to cut

out the centre pieces first and work your way towards the outer pieces.

After all the pieces have been cut out of the packets, place the pieces onto a piece of double-tack mounting film paper. Then with a scalpel, cut around the tree to remove the excess film paper.

To keep the tree flat, sandwich it between

the two plywood cauls with a weight on top and set aside while you complete the rest of the eight packets. Once you have all the packets complete, place them on the background veneer and hold in place with tape. This way you can take a step back and look at the overall top to make sure all trees and leaves are in their proper place before starting the next step.



15 It's best to cut out the centre pieces first and work your way towards the outer pieces



16 Using a scalpel to cut around the tree to remove the excess film paper



17 Once you have all the packets complete, place them on the background veneer and hold them in place with tape

Inserting the packets

The next step is to insert each completed packet into the background veneer. Use the window method for this, as explained earlier. After the waste veneer is removed, tape on each insert until the completed marquetry section of the top is complete.

Next, flip over the large piece of marquetry and use water gum tape to hold the entire piece together. You can then flip it back over again to remove all the blue painter's tape, and now the large centre piece of the marquetry is ready for gluing to the top substrate.

To glue the marquetry to the top, cut out an elliptical shape clamping caul at 20 × 1,270 wide × 1,778mm long. Then, using a paint roller, glue both the marquetry and the top with Titebond II dark wood glue. Next, place the marquetry veneer centred on the

top, but before you place it into the vacuum press bag, shoot in two pin nails through the caul into the substrate; this will keep the marquetry from moving around while the air pressure slowly tightens the bag to the clamping caul.

After the glue has dried overnight, take the top out of the vacuum press bag and remove the caul. The two pin nails pull out with the caul and the small holes can be filled with putty before finishing.

To remove all the paper and water gum tape, I use my Festool ETS 125 EQ random orbital finish sander with 150 grit abrasive. Once the paper is removed, lightly hand sand the entire top with 150 grit abrasive.

To even out the veneer around the outside edge of the marquetry I use the same clamping caul and clamp it centred to the

top, then use a router and a template guide with a 12mm diameter straight cutting router bit. I set the router bit to cut flush to the top then flush trim the marquetry veneer edge even around the clamping caul.

For the outside border, use a walnut burl. To cut out the veneer I make a cutting clamping caul out of 25mm thick plywood. The caul is the same radius as the marquetry edge and hangs over the outside edge of the top by 6mm. I use this border caul to cut out the walnut burl using the caul as a guide on top of a cutting mat and using a scalpel. After you're finished cutting out the veneer, use the caul to glue and clamp down the veneer to the border around the top, gluing on one piece at a time. Let the glue dry for about three hours before moving on to the next corner.



18 After the waste veneer is removed, tape on each insert until the completed marquetry section of the top is complete



19 To remove all the paper and water gum tape, I use a Festool ETS 125 EQ random orbital finish sander with 150 grit abrasive



20 Using a router and a template guide with a 12mm diameter straight cutting router bit



21 Using the caul to glue and clamp down the veneer to the border around the top, one piece at a time

Ebony inlays

The next step is to rout in the 10mm wide × 3mm deep plough for the solid ebony inlays, which go on the outside of the top and one that splits the walnut and marquetry veneer seam. By using the same clamping caul and a larger template guide with a 10mm straight cutting router bit, rout in the walnut and marquetry veneer seam. Next, using a rabbit router bit, rout in the plough around the outside edge of the top at 3mm deep × 10mm wide. To make the radius ebony banding, bend three layers of 3mm around the clamping caul and outside edge of the top, then glue the bent ebony banding into the ploughed, which are routed into the top.

With a hand-held cabinet scraper, shave

off the excess ebony to where it is flush to the veneer. Next, to make the top thicker, cut out two elliptical rings at 16mm thick × 75mm wide – these go on the bottom face of the top using the same router jig that was used to cut out the top. Then glue and clamp the two 16mm elliptical rings to the bottom outside edge; this will give the total top thickness at 55mm. To glue the solid mahogany top edges, cut 3mm thick × 70mm wide strips. You will need six pieces for each of the four wraps needed to make the 29mm-thick × 1,828mm long top edges. In all, a total of 24 pieces are needed to complete the top mahogany edge.

Start by gluing only the six pieces together but not to the top. This way, after the glue

dries you can remove the wrap and glue up the other three wraps. Next, mitre each completed wrap together to fit around the top edge, using large strap clamps and fitting each mitre together as a dry fit. Then remove the four edges and roll glue onto one top wrap and strap clamp one at a time until all four wraps are glued to the top edge. You can then use a flush trim router bit to rout the top edge flush to the top on both sides of the top and bottom. Next it is time to clean up the top edges using a cabinet scraper. Use a profile router bit and rout in the top edge profile. The last step is to hand-sand the top edge clean and smooth using 150 grit abrasive. The 150 grit paper helps the stain go on evenly.

PROJECTS & TECHNIQUES

Coffee table base – part 2



22 Bending three layers of 3mm around the clamping caul and outside edge of the top



23 Using a hand-held cabinet scraper to shave off the excess ebony to where it is flush to the veneer



24 Strap clamping one at a time until all four wraps are glued to the top edge



25 Cleaning up the top edges using a cabinet scraper

Finishing

The goal for staining this table base and the top edge is to have a dark colour that still shows the beauty of the wood grain. I start off by using a compressed air nozzle and a rag to clean out all of the dust. Next, I brush on a conditioner that will fill the open pores like a sealer; this gives it a more uniform colour. I then use a walnut colour aniline dye, which penetrates deep into the pores.

The next step is to stain over the dye with a dark walnut lacquer-based stain. I do not wipe off the stain, but instead use a large artist's brush and brush the stain off. While doing this, clean the extra stain out of the brush using a clean dry rag. I then repeat these steps until the base is even in colour.

The very last finishing step is to spray three coats of satin pre-catalysed lacquer over the entire base, including the bottom of the legs and runners. This will help seal all the pores, which will allow less expansion and contraction as the weather and seasons change.

For the finishing of the top I use the same finishing steps as the legs, only I spray five coats, then wet sand with 320 grit to flatten the top. This step will remove approximately four dry coats of finish. I then add three more coats of finish sanding in between each coat with 320 grit abrasive. After I spray on the last coat, I don't sand and let it sit overnight before moving. The Art Nouveau coffee table is then complete. *F&C*



26 Brushing on the stain over the aniline dye



27 Using a walnut colour aniline dye, which penetrates deep into the pores



28 Spray three coats of satin pre-catalyzed lacquer over the entire base



29 Spraying on the last coat before letting it sit overnight



30 The completed Art Nouveau coffee table base

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Winding sticks – a necessary tool

Anne Briggs Bohnett
takes the mystery out of
the 'hows' and 'whys' of
winding sticks and shows
you how to make your own

The first step in any woodworking project is to assess the wood you have on hand. Is it cupped, bowed or twisted? Winding sticks are simple tools with a big job – helping woodworkers prepare wood that is flat, square and true. Winding sticks have been used in woodshops for a long time and are nothing new, but if you aren't using them

in your own workshop, then you should be. In their simplest form, they are two scraps of wood slightly longer than your material is wide. By placing them at either end of your workpiece, parallel to one another, you can sight down across the winding sticks and see any twist or 'wind' – pronounced as in 'wind a clock' – in the workpiece exaggerated by the winding sticks.

Having the right tools for the job

I described above winding sticks in their 'simplest form': two scraps longer than your workpiece is wide. Scraps will work fine in a pinch, but in the same way that winding sticks will amplify problems within your workpiece, poorly tuned winding sticks will also give an inaccurate reading of the state of your wood.

Make your own winding sticks

So how might you go about making some winding sticks you can use for the rest of your woodworking career, with only an occasional tune-up? Read on. First off, you will need some well-seasoned, quartersawn wood that is both acclimated to your workshop and fairly stable. That nice piece of 760mm long, 100mm wide, 25mm-thick clear grained tropical hardwood you've been

hoarding for some special occasion would make some perfect winding sticks. And just think, you'll get to admire that special piece every day when you use your new favourite tool! The design and dimensions of your winding sticks is totally arbitrary, the only important factor being that they are well tuned and slightly longer than your workpiece is wide. The longer they are, the more exaggerated the twist in your wood will appear. Too long, however, and your winding sticks become unwieldy both in use and in remaining true.

Rough out your winding sticks with a handsaw or a bandsaw, match them as perfectly as possible in height, length and width and plane the two faces square and true. Introduce greater accuracy by planing the faces of both winding sticks at the same time.

To introduce a taper along the height of your sticks, mark out your waste with two marking gauges. As mentioned before, the measurement is totally arbitrary. By eye, I set my first gauge to approximately 6mm

and marked the edges and along the top on both sides of both pieces. I then set my second gauge to just over half the height of the winding stick and marked the edges and along both faces.

I used a wide chisel corner to corner to mark out the triangular-shaped waste on either side. Then, I carefully planed down to where the marking gauge lines met near the edge, and worked my way back with my plane until the whole waste was evenly removed along its length. I calibrated them on my long grain shooting board and called them finished. You can add finish to yours if you'd like, but just keep in mind that finish will not protect your winding sticks from going out of true and they will need to be touched up from time to time.

The most important thing about your winding sticks is how well they are tuned. The most logical way, it would seem, to true up the long grain of your winding sticks would be to clamp them together in your end vice and joint them both on either side at the same time. However, it is very

likely that either your sticks' faces aren't perfectly parallel, the faces of your vice are not perfectly parallel or some combination of both. If you clamp imperfect pieces into an imperfect vice, a slight, or maybe large, amount of twist gets introduced. The edge is planed straight, then the stick is taken out of the vice, returns to its original shape and the newly straightened reference edge is twisted. Instead, shoot them square on both the top and bottom edges on a long grain shooting board; this will ensure not only that the tools match one another perfectly, but

also that the tool is in its natural state when the edge is straightened.

And while we are speaking of matching sticks, here's where inlay comes in handy. Your two sticks need to be perfectly parallel to one another. In a perfect world, they would be straight, square and parallel to one another all along their length, but that is a difficult thing to achieve. If one stick tapers even a few thousandths of an inch along its height, every reading you make with the winding sticks will be off by that much. When you tune your sticks, mark the inside

faces somehow, be it with inlay or simply a Sharpie. In use, these two faces should always be facing inwards towards each other so any errors introduced in the tuning process are consistent and don't affect your readings. If you were to introduce a slight taper to one or both sticks during the tuning process, then were to flip one of the sticks 180° during use, that error would be doubled instead of cancelled out. So, if you inlay or otherwise mark the interior of both winding sticks, you will always have a quick and easy reference for proper orientation.



Make your own winding sticks



Adding a taper exposes more end grain and gives greater stability



Mark out your waste



Use a long grain shooting board to true up the tops and bottoms of winding sticks

Shop-bought alternatives

If you simply don't have the time or patience to make your own workshop accessories, there are several fantastic options on the market. I've used the aluminium Lee Valley Veritas pair for three years in my workshop and they have several advantages. The first being that aluminium is stable, and the winding sticks won't 'move' the way wooden ones will. You can buy these once, use them for a lifetime and never worry a moment about them. They nest together and hang easily on a nail on the wall and you can drop them and they won't break. They also have a black oxidised matt finish on one side and a machined portion on the other, which makes for a nice contrast, with graduated grooves at 3mm intervals to help you better estimate just how far off your workpiece is. The only two disadvantages I've found are with their looks – wood is always prettier than aluminium – and their length. If I'd made my own, I would have made them longer as I frequently deal with very wide stock.



Veritas winding sticks

Using your winding sticks

To use my winding sticks to check for a flat face, I place them with the two machined faces pointing inwards towards each other, step back about a foot, crouch down level with my work and then sight across the top of the winding sticks. I mark high areas with a pencil, remove the winding sticks, make a few passes with the plane and then re-check for square with the winding sticks.

If the board is twisted, two opposing edges will be high. In this case, plane diagonally the length of the board from high corner to high corner. If your board is rocking as you plane, add a few shims under each of the high corners so the board is resting on a solid surface on all four corners. Avoid planing the low areas of the board until you have removed all twist.

Turn your board on edge, check for any remaining high points, mark them with your pencil, reposition your piece on your bench and plane them out with successive passes, growing the planed area with each few passes until you have a completely flat surface.



Sight across the top of the sticks



Plane high points of a twisted board diagonally

Community Tool Chest: Walke Moore Tools and their educational example

This month's Community Tool Chest entry is focused not on a specific tool, but on a small tool company with a really great educational model. Aaron Moore, co-founder of Walke Moore Tools, has been a fantastic help to the woodworking community at large by providing a series of very informative educational blogs, free of charge, via their website: www.walkemooretools.com. Aaron provides free tutorials and thoroughly and thoughtfully answers questions from woodworkers all over the globe via his

Instagram account – [@walkemooretools](https://www.instagram.com/walkemooretools) – and has made himself personally available to answer many of my questions with regard to my own projects on behalf of the Community Tool Chest Initiative as well.

Walke Moore Tools also offers winding sticks for sale. They are made from quartersawn wood to minimise stick movement/warping. They are tapered over their height, which exposes more end grain, thus adding even more stability both in the wood – less

movement – and in use – they are less prone to tip over in use. They have a centre marker, which simplifies stick setup when in use, and are inlaid with contrasting wood to add improved visibility and ease of use. Their magnetic clips hold the sticks together when not in use and this feature, over the simple nail hole drilled in most winding sticks for hanging purposes, reduces wear on the sticks and is visually appealing to boot. *F&C*



Walke Moore Tools' winding sticks

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The historic art of japanning: imitation is the sincerest form of flattery

**Furniture conservator Cathy Silverman introduces us to the history,
technique and conservation of japanning**



PHOTOGRAPH COURTESY OF THOMAS COUL BORN & SONS

English craftsmen attempted to replicate Asian lacquerware using familiar materials. The technique became known as japanning. Japanned secretaire, England, circa 1730

Lacquer had been treasured for centuries in Asia for its lustrous sheen and durability before it was brought to Europe, first by overland trade routes and then by ships of maritime nations, Portugal, Holland and Britain. From its first arrival, Europeans were fascinated by the lacquerware, initially collecting objects as curiosities. By the mid-17th century, lacquerware was at the forefront of the craze for chinoiserie. However, as ships brought back few pieces, reserving the limited space on board for spices, which were more profitable, demand quickly outstripped supply. This stimulated the production of copies executed by European craftsmen.

The main ingredient of Asian lacquer, sap from the *Rhus verniciflua*, a tree related to poison ivy found in China, was not available in Europe. In fact, the process of making lacquer and the materials involved remained a mystery until the 18th century. Craftsmen therefore substituted familiar natural resins, such as shellac and sandarac. The resulting 'lacquer' was known as japanning, a term used indiscriminately to describe imitations of lacquerware from all parts of Asia.



Cathy Silverman

Following her conservation training at London Metropolitan University and West Dean College, during which time she undertook internships at The Wallace Collection and Plowden & Smith, Cathy Silverman has been working as a furniture conservator at Period Furniture Conservation, a commercial conservation studio in New York. She has conserved japanned objects for numerous clients, including a longcase clock now on display in the Boston Museum of Fine Arts.



History of japanning

The process of japanning evolved over time. Spirit varnishes were used from the 16th century, while oil-based japanning was not produced until the 18th century. Labour-intensive spirit japanning was produced in small workshops and tended to be used on luxury objects. The more durable oil varnishes could be made in large factories, so objects could be

produced more cheaply, bringing the product to the common people. Oil japanning was used to coat new materials, such as tin plate, papier mâché, and all kinds of objects, from coaches to household items and particularly tea trays. Wolverhampton and Bilston were important centres for the manufacture of japanned ware. According to Samuel

Timmins' book *Birmingham and the Midland Hardware District*, published in 1866, there were 2,000 people employed in the japanning and tin-plate industries in Wolverhampton and Bilston at the time. Japanning firms ranged in size from small family workshops, which often adjoined the proprietor's home, to a few large factories employing over 250 people.

Uncovering the lost art of japanning

Unlike other historic finishes, such as gilding and French polishing, japanning is no longer widely practised today. Over the centuries the art has been lost, perhaps because the process was too time consuming to be profitable, perhaps because the style of decoration was no longer in vogue. To learn about the technique we must therefore look to historical texts and existing japanned objects.

Several texts providing detailed technical instruction for the manufacture of japanning were published in the 17th and 18th centuries. These were aimed at the amateur japanner, often the 'lady of leisure', rather than professionals who learnt their craft by apprenticeship. However, these give us vital clues about the process. Perhaps the most well-known of these texts is the *Treatise of Japanning and Varnishing* by John Stalker and George Parker (1688), which included a set of designs at the back of the volume.



Historic texts written to instruct amateurs in the art of japanning, such as Stalker & Parker's *Treatise on Japanning*, help us to understand the technique

No standardised technique

Unlike Asian lacquer, which was made from a single product, various natural resins and countless recipes were used to produce japanning. Shellac has often been thought to be the sole resin used for japanning, but research has revealed that very few japanned coatings contain only one ingredient. More often they comprised a combination of several resins and oils. Sandarac, mastic, gum-lac, copals and benzoin were all used to make japanning.

The process: step-by-step

Wood

Smooth, close-grained, knot-free, non-greasy woods were recommended as suitable substrates for japanning. Historic texts suggested pear (*Pyrus communis*) and olive (*Olea europea*), but rougher, cheaper woods typical of cabinet construction such as oak (*Quercus spp.*) and pine (*Pinus spp.*) were often used. Sometimes these were veneered with a closer-grained wood.



Close-grained woods, such as pear, were recommended for japanning, but often rougher, cheaper woods such as oak were used

Application of colour

Varnish mixed with pigment – vermilion for red japanning – was applied in layers. The initial coats were heavily pigmented, with subsequent layers containing less and less pigment. Some texts recommended that vermilion be replaced by carmine lake or dragon's blood towards the end, to intensify the colour. Each layer was allowed to dry, smoothed and polished, before applying the next.



Many layers of pigmented varnish are built up and carefully polished

Gilding and linework

The raised areas could be gilded by wetting the surface and applying gold leaf. Oil size was used to gild designs on the japanned surface. The gilding was coated with sandarac before black line detail was added using lamp black paint. To finish, several coats of clear varnish were applied to the whole.



The raised area is water gilt, and can be burnished. The rest of the design is oil gilt

Gesso ground

Historic texts describe the application of a standard gesso ground made from a mixture of whiting and size. The japanner was instructed to brush the surface with hot size, which would have served to raise the grain, creating a mechanical bond for subsequent layers. This was followed by several layers of gesso, applied thinly and evenly to the surface until the grain of the wood was obscured. The gesso was traditionally smoothed with Dutch rushes and polished with a damp rag.



The wooden surface is coated with gesso

Raising

Raised decoration imitated Asian lacquer examples. Rocks, hills and figures, for example, were often picked out in this manner. As can be seen below, a raised design was made by applying a paste of gum arabic, bole and whiting to the finished surface by allowing the mixture to drip off the end of a stick.



Some areas of the design are raised using a paste made from gum arabic, whiting and bole



Fine line detail is added in lamp black paint and the piece is coated with several more layers of clear varnish

Conservation case study

Whole books have been written on the conservation of japanning. This case study briefly introduces one way of treating flaking japanning.



Japanese tissue paper was applied to the surface using dilute size to allow the object to be removed without causing further damage



Flaking japanned surface before...



... and after treatment

Why japanning flakes

Over time, the glue in the ground coating of japanning tends to dry out and the varnish layers become brittle. Additionally, the multi-layered structure of japanned decoration makes it particularly vulnerable to damage from fluctuations in relative humidity.

Whatever its age, wood continues to swell in high humidity and shrink in dry conditions. The resins and gesso will respond too, but to a lesser extent. These different rates of expansion and contraction will cause stress at the interface, and extreme highs and lows in humidity can cause the japanning to crack and lift.

The japanned surface of this English 18th-century clock case had suffered extensive damage when the central heating was running with no humidity control to counter its effects.

Preliminary consolidation

To transport the object to the conservation studio without further damage, a preliminary consolidation treatment was performed at the owner's residence. The whole surface was faced with Japanese tissue paper. Tissue was dampened with water, laid on the surface and sprayed with diluted fish glue, which penetrates the tissue paper to reach the decoration beneath. Spraying can be preferable to brushing when japanning is extremely delicate, as unnecessary contact is avoided. The tissue paper provides a protective layer, holding loose decoration in place until it can be properly treated.

Consolidation – the second stage

At the studio, a second round of consolidation was performed. This time glue was injected beneath lifting flakes using a hypodermic syringe. Where flakes were deformed and needed to be flattened, simply pressing them down onto the substrate could lead to further cracking, so a heated spatula was used to gently soften the resin whilst pushing them onto the surface.

Fill materials – the importance of reversibility

A key tenet of conservation is reversibility. If possible, the work of the conservator should be distinguishable from the original – under UV for example, or through documentation – and removable down the line without damage to the original. Therefore, rather than attempting to replicate

the missing japanned decoration using identical materials, the losses were filled with an acrylic gesso and inpainted with the acrylic resin, Paraloid B67, mixed with dyes, pigments and a matting agent. The solvents required to remove these materials will not affect the surrounding japanning. *F&C*



Losses were filled with acrylic gesso and inpainted with acrylic resin...



... both materials can be removed without damage to the original decoration

Asian lacquer or japanning? Spotting the difference

Although the materials used by British craftsmen to produce japanning differed markedly from those used to create the objects they sought to imitate, the surfaces, when new, would have been difficult to tell apart. This is no doubt due to a similarity in technique; the application of many thin coats of a translucent resin and the careful polishing between layers resulted in both cases in a glorious depth of colour and a flawless lustrous surface. With experience, however, it is often possible to distinguish between Asian lacquer and japanning. Below are seven tips to help you spot the difference.

Red herring – the decoration of Asian lacquer produced for export to Europe was often busier and less finessed than pieces produced for their domestic market, so can be more readily confused with English japanning



Density of decoration

Stylistically, japanning tends to be busier than lacquer. However, this measure can be misleading, as lacquer work produced for export often catered to the European taste.

Decorative motifs

Japanned furniture was often made by craftsmen who had never been to the Far East, resulting in fanciful, sometimes comical depictions of the land, its people and creatures.

The style of the overall piece

If the outline of the piece is distinctly Asian in character it is unlikely to be japanned. However, this assumption only works in one direction as Asian lacquer panels were often inserted into European pieces of furniture.

Ageing characteristics

Lacquer tends to delaminate in a relatively thick layer, creating cracks running parallel and perpendicular to the grain of the wood beneath, and lifting to form tents; japanned objects are more likely to exhibit craquelure.

Quality of decoration

As a general rule, the gold decoration of Japanese lacquer tends to be executed with more precision and finesse than japanning, which can appear somewhat naïve by comparison. Again, lacquer produced for export can be a red herring.

Sound

Lacquer is harder than japanning – it produces a crisper ring tone and higher pitch when you tap the surface with your fingernail.

Solvent tests

Solvent tests, based on the fact that resin-based Western japanning is soluble in polar solvents, unlike Asian lacquer, can help to distinguish the materials, although the author cautions those without conservation training against this approach, as there are several complicating factors and the tests themselves can damage the object.



PHOTOGRAPH COURTESY OF THOMAS COLEBORN & SONS

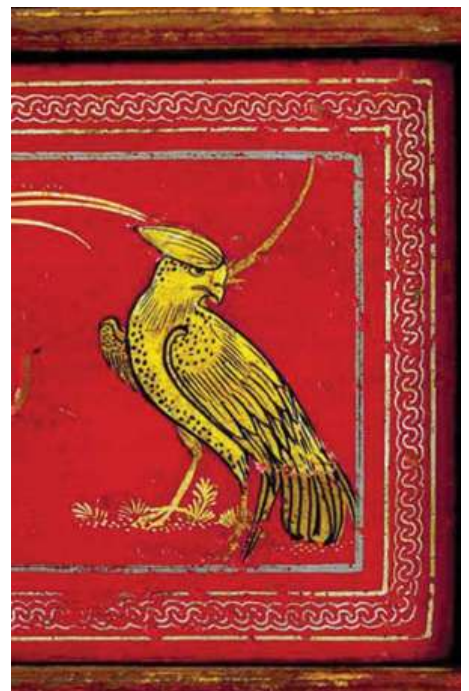


Don't assume that chinoiserie on English style furniture is japanning – Asian lacquer panels were often scraped down and used like veneer in European pieces

Japanned furniture was often made by craftsmen who had never been to the Far East, resulting in fanciful, sometimes comical depictions of the land, its people and creatures



With age, Asian lacquer tends to lift in a thick layer to form 'tents' and cracks that run parallel and perpendicular to the grain, whereas japanning exhibits craquelure



Japanned decoration often appears somewhat naïve in comparison to Asian lacquer

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PHOTOGRAPHS BY CHARLES MAK

A roll-away mitre saw cabinet

Charles Mak took a frugal and time-saving approach to building a mobile station for his new mitre saw. Here he shares his space-saving design as well as some of his favourite mitre saw jigs and tricks

I recently replaced my compound mitre saw with a Kapex, promoted by its manufacturer as the best-in-class sliding compound mitre saw. I need a mobile base for the saw, not because the saw is a job-site tool for me, but because it is to be rolled into a tight corner after every use. The optional factory mobile cart, which is 900mm high, does not suit me as, when the saw is mounted on it, the saw handle is a little too high for my comfort.

Instead of building a mobile cart from scratch, I came up with the idea of converting an old filing cabinet into a mobile saw station. I also included extension wings in my design with a goal of easy setup and breakdown. Lastly, I made a few accessories and jigs to increase the functionality of the saw.



The mobile saw station has a small footprint and is tucked into a corner of the workshop



Now I can roll and use the mitre saw anywhere in the shop



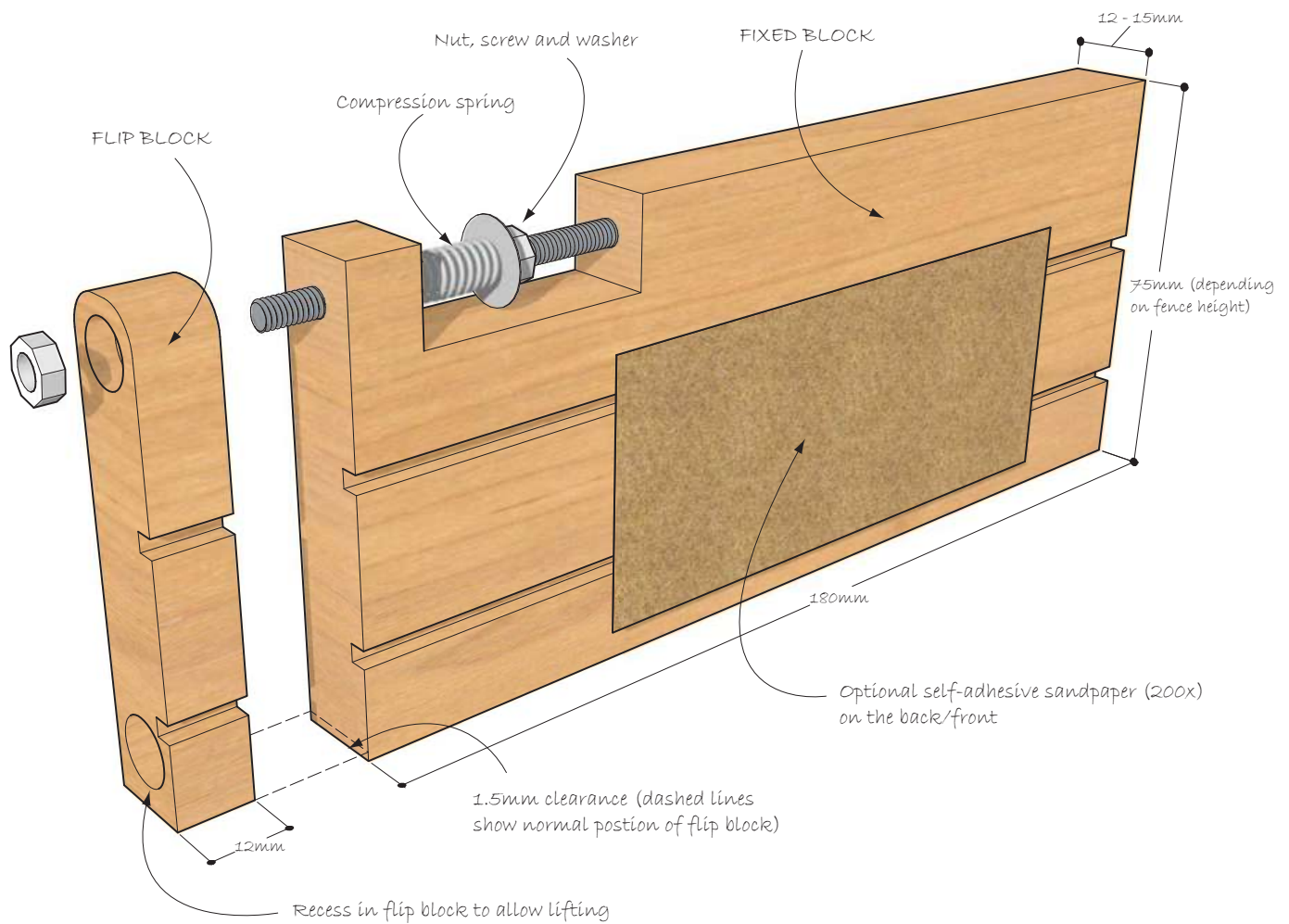
The cabinet provides ample storage space for accessories and jigs



With its wings attached, the saw station holds stock up to 3,500mm long



The extension system can be set up or disassembled tool-free in a matter of minutes



The mobile cabinet

To prepare the cabinet for the conversion, I replaced the standard castors with locking stem castors. I then bolted a plywood sheet – 19 × 585 × 840 mm – to the cabinet's top to form a platform for the saw and the extension wings. Solid strips are used to cover the edges of the plywood. The platform is 735mm from the floor and when the saw is mounted on it, I don't have to raise my arm high up to reach for the handle.



The mobile cabinet was refitted with locking stem castors



I inserted plastic sleeves over the linear rail to reduce the plunge depth and cut shallow mortises on the solid edging

Shop-made extension wings

Good support to handle long stock is essential to any mitre saw. I built an extension system out of scrap materials. The wings are two long boards measuring 19 × 120 × 1,200mm, fitted with a shop-made stop block on each wing. Some woodworkers include a fence on the wings, which I feel is not really necessary, because one always aligns a workpiece with the fence on the mitre saw.

Some Kapex owners also use after-market bracket kits to attach their shop-made wings to their saws. My solution is straightforward and economical: spacer blocks are added on the platform to level the wings with the saw table and the wings are friction fit on to the blocks with Dominos or dowels. Each wing is then supported by a leg that rests on a bracket mounted on the cabinet's side.



I glued a plastic card in the stop block; this would allow me to keep the thumbscrew from marring the wing's surface



Spacer blocks are attached to the platform, giving the wings tool-free connection to the mitre saw



The legs rest on the sides of the cabinet rather than the floor, keeping the wings level with the saw table at all times

Dust collection

The dust collection performs best – up to a 91% dust collection performance – with the use of a 36mm diameter hose in the dust port. I always use my dust extractor with a cyclone separator to both increase the capacity of the shop vacuum and extend the life of its dust filters. Since the separator uses a 34mm diameter hose, I clamp a short piece of tube as an adaptor on the saw's dust port.

How we make the cuts on this saw also affects the dust extraction as well as the extent of splinter or breakout. The correct way is to pull the saw head all the way out, lower the blade on the stock and then push the saw to make a cut.

Finally, I made an auxiliary fence out of a 6mm-thick plywood piece and covered the factory throat plate with a commercial zero-clearance tape, a replaceable PVC strip. The zero clearance insert not only keeps small cut-offs from piling up in the insert slot but also seems to divert more sawdust towards the chip deflector.



Connecting the hose over rather than into the dust port improves dust collection



Tear-out is minimised when starting the cut with the saw fully extended



The auxiliary fence is mounted to the fence with double-faced tape as it is too thin for countersunk bolts

Spring-loaded stop block

To make identical cuts precisely on the mitre saw, you need a stop block. Commercial stop blocks are, however, mounted on the left side of the saw, making it unsafe to cut identical, short pieces. My solution? Use a spring-loaded stop block that can be used on either side of the blade. The stop block has a fixed block and a flip block – see the sketch drawing for details of the jig. To set the jig in place, clamp the stop block in position to the auxiliary fence and place the workpiece against the flip block.



Lift the flip block out of the way before cutting to prevent binding

Pinch stick

Cutting smaller pieces on a mitre saw can be tricky. How best to hold a short workpiece without your fingers getting too close to the blade? Make and use a pinch stick, which is just a hardwood strip about 300mm long with a wood screw mounted at one end. The stick adds a pinch of safety as it holds the workpiece tight on the fence while keeping the hand away from the cutting path of the blade.



The pinch stick keeps my hand outside the 'no hands' zone

Cutting beyond the mitre range

You can cut mitres outside your saw's mitre range by holding the stock perpendicular to the fence. Here's how. Build a right-angle brace and clamp it to the saw fence. When your stock is held so in the jig, the cut will be at the complementary angle of the mitre angle. So, to make a mitre cut at 70° with the jig, simply lock the mitre at 20° on the saw. For safety reasons, always clamp the workpiece to the jig – as shown in the photo – and not to hold the stock with your hand.

You can also easily cut short tapers on the bottoms of legs with this angle jig



Cutting beyond the width limit

Do you know the trick of cross-cutting a board wider than the mitre saw's cutting depth limit? The trick in this case is not to measure twice and cut once, but to also cut twice. First, set the stop block in position and place the stock against

it. Make the first cut on one side of the stock as usual and then turn it over with the uncut edge against the fence. Butt the end against the stop block and make the finishing cut in the normal manner.



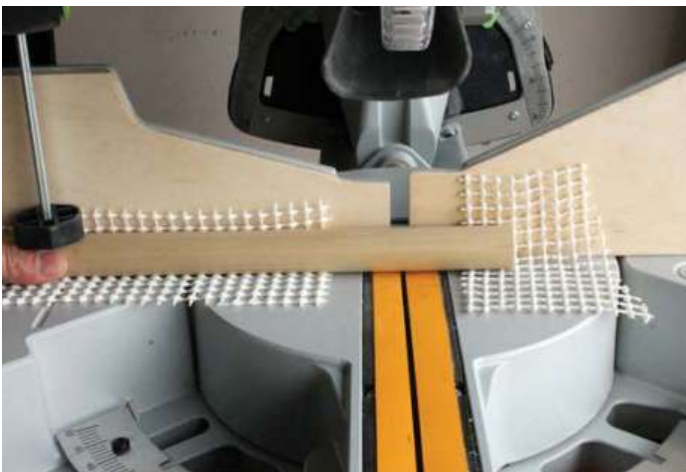
Pull the saw all the way out and make a full-depth cut



With the board flipped over and clamped down, make another full-depth cut to separate the piece

Cutting round stock

To cut round stock, like a dowel for example, we usually need a V-groove cradle to hold the stock. What if the dowel is too large or too long for the cradle? I have a much simpler solution: place a non-slip shelf liner or a self-adhesive sandpaper against the table and fence on each side of the blade. Holding the dowel firmly against the liner will keep the dowel from spinning when you make the cross cut.



The liner can be taped to the auxiliary fence and saw table, if necessary

Cutting thin strips

With a zero clearance insert and a hold-down jig, you can safely trim narrow pieces on the mitre saw. I use a rebated hold-down jig on the shooting board to trim edges. The same kind of jig can be used to hold narrow pieces down on a mitre saw table. For more gripping power, you can attach or glue sandpaper strips to the rebates.

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Position the piece and hold it down with the rebated jig and clamp



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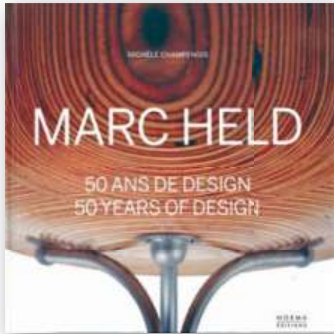
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Workshop library

We review three books for you; *Marc Held: 50 Years of Design, Arts and Crafts Furniture* and *Woodland Craft*, as well as John Lloyd's website

BOOKS



Marc Held: 50 Years of Design

By Michèle Champenois

50 Years of Design catalogues the work of French architect and designer Marc Held. This collection of photographs has been collated by Michèle Champenois, journalist and design critic at *Le Monde* whose admiration for the work of her subject is clear.

The collection of plates is presented in chronological order from 1961 to 2013, the book itself having been published in 2014. A large, heavy 'coffee table' book it runs to 377 pages, each of which contain a large format image of Monsieur Held's work, accompanied by a short paragraph or two on the design and aesthetic aims of the piece – the latter penned by the curator. The breadth of the work on display throughout the book is impressive; chairs, cars, porcelain dining-ware, wrist watches – nothing seems to have been outside this designer's comfort zone.

One of the most interesting moments in the book is towards the end when, much to the amazement of his friends and clients, the designer decides to leave his very successful design studio in Paris to relocate and settle in Greece, whereupon his work takes a different direction. Gone are many of the modern materials, such as steel tubing and fibreglass mouldings that had previously been a prominent feature, to be replaced by the woods that are typically used by local Greek craftsmen.

The quality of the photos at some points is a bit disappointing. While those from the earlier eras are understandably grainy, and indeed this adds to the feeling of viewing the piece in its true time and place, it is surprising that some images taken very recently exhibit a similar quality to those taken 30 years previously.

Of course, this could be a deliberate act by the curator in order to keep a consistent feel to images, but nevertheless it seems a shame to ignore the benefits of the clarity of photos we're accustomed to in this digital age.

Notwithstanding the image quality, for a student of design and particularly for those with an interest in the modernist design ethos of the '60s and '70s this would make an engaging and useful reference work.

Mark Langston

Published by Norma Éditions
ISBN: 9782915542639
377 pages £32.80

Arts and Crafts Furniture

by John Andrews

One of, if not the most popular genres of furniture has seen countless books recording its luminaries – we're all familiar with Gimson, the Barnsleys, Mackintosh, et al. Here though, John Andrews delves a lot deeper and embarks upon a more thorough study of furniture of the Arts & Crafts movement. Of course, the leading figures are all present, but he also explores the work of the equally important but less heard of names of the time such as Romney Green, Lorimer and Jarvis.

'A Brief History' gives an overview of the origins of the movement and its protagonists, looking at the philosophies and catalysts. Though the text here is a little heavy at times, overall the book is well balanced with an emphasis on high quality images.

An interesting timeline follows, starting in 1829 and charting the build up, arrival and peak of the Arts and Crafts movement. This leads on to a thorough examination of the 'build up' which, in turn, brings us on to 'The Movement Arrives' – the core of the book. Each maker is comprehensively represented with excellent texts and scores of beautiful photographs – there is plenty of project inspiration



material here!

There is a separate chapter charting the American Arts and Crafts movement and its leading lights, but it would have been nice to see a more comprehensive study of the lesser known makers, as with the UK section. There is also little reference to other European Arts and Crafts makers of the day.

For Arts and Crafts fans this is a hefty but important book and an interesting and informative read. This, the second edition, has apparently over 60 more illustrations and photographs than the first edition and includes new, recently emerged information about the movement. This book makes a worthy addition as a comprehensive Arts and Crafts reference text.

Steve Morris



A typical spread from *Marc Held: 50 Years of Design*



Work attributed to one of the featured makers, Bruce Talbot



The classic Cotswold features of the Ernest Gimson studio attributed to Peter van der Waals c.1910

makes a worthy addition as a comprehensive Arts and Crafts reference text.

Steve Morris

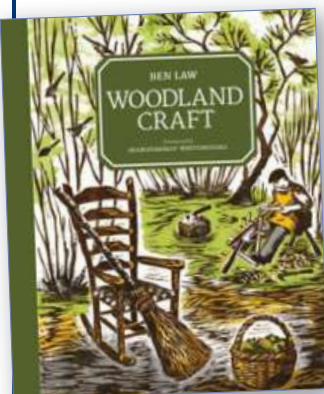
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ISBN: 9781851497317

328 pages

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BOOK OFFER



Woodland Craft

by Ben Law

Ben Law is approaching 25 years of living in Prickly Nut Wood, so we can certainly say he knows his woodland crafts well! His new book, *Woodland Craft*, focuses on the crafts and products that are manufactured from, and in, the woods.

Woodland Craft has seven chapters – each of which are divided further into the following sections; the woodland resource, directory of tree species, crafts for farm and garden, wood fuel, crafts for building, domestic crafts, and finally tools and devices

for woodland crafts.

Within the 'directory of tree species' Ben looks a small number of different woods, including; alder (*Alnus glutinosa*), ash (*Fraxinus excelsior*), beech (*Fagus sylvatica*), birch (*Betula pendula*), cherry (*Prunus avium*), elm (*Ulmus procera*), lime (*Tilia vulgaris*), oak (*Quercus robur*) and more, which could be useful should the reader be interested in learning about a certain type of tree/timber.

Ben addresses all kinds of subjects, such as woodland craft materials, the history of the woodland resource and woodland management. He also shows you how to make projects, like a wattle hurdle, woven panel, besom broom, split-handle hay rake, post-and-rail fencing, diamond trellis and a gate hurdle and many more! The information is packed into clearly divided chapters, with plenty of lovely colourful photographs throughout. The pages are fun, in that they don't follow a particular pattern, some text-based and others with bright photo galleries.

ISBN: 9781861089366 RRP: £25.00 Offer price: £17.50

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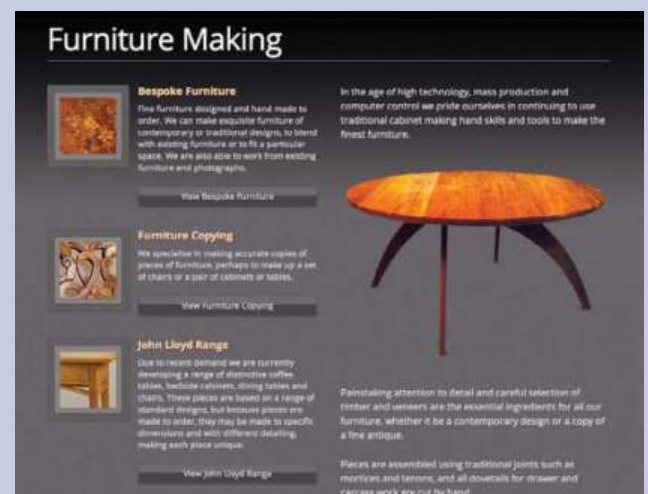
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Website of the month

John Lloyd: Fine Furniture



This month we take a look at the website of fine cabinetmaker and antique furniture restorer John Lloyd. The website's clear and elegant design makes it easy to navigate between the four main areas of John's business – training courses, furniture making, antique restoration and quality fine tools. The 'Training Courses' section is divided into two sub-sections, one for long furniture-making courses aimed at serious hobbyists and those wanting to turn professional, and the other for intensive short courses. As well as full details about each course and online booking forms, you can also view galleries of past students' work. Under 'Furniture Making' and 'Antique Restoration' you can find out about all the services that John provides, including the new John Lloyd Range of contemporary coffee and side tables. Each page is illustrated with good quality photographs, which highlight the high standard of the work. In 'Fine Tools' you can purchase a range of high-quality tools from companies such as Auriou, Lie-Nielsen and Veritas. Tools are searchable by manufacturer or category. Another useful feature on this site is the 'Articles & Publications' page where you can browse John's written work.



Details

Contact: John Lloyd

Web: www.johnlloydfinefurniture.co.uk

NEXT MONTH in

Furniture & cabinetmaking

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Project – coopered lid box



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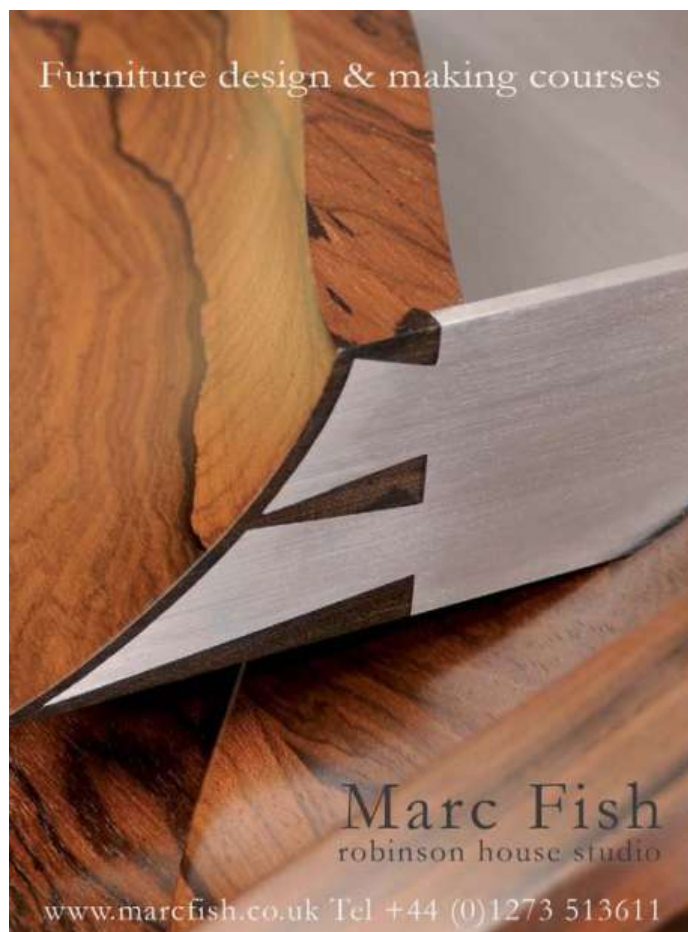
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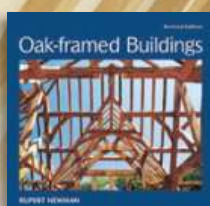
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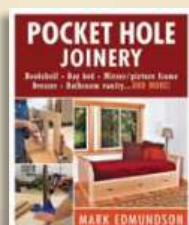
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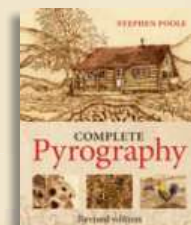
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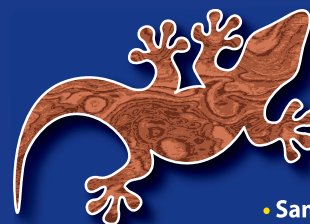
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UNDER THE HAMMER:

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Louis XIV ormolu-mounted ebony, fruitwood and marquetry commode

We take a look at the top lot from Bonhams' recent 'Europe – Defining Style' auction

This fantastic Louis XIV ormolu-mounted ebony (*Diospyros spp.*), fruitwood and marquetry commode features a rectangular top with rounded corners inlaid with a central urn filled with summer flowers including tulips, jasmine and carnations, on a platform supported by a grotesque mask. All of this decoration is surrounded by elaborate scrolling foliage, strapwork, butterflies and birds.

The four long graduated drawers are of arc-en-arbalète form, panelled to simulate eight short drawers with conforming marquetry. The canted corners with outset scrolling bases are mounted on short feet formerly with mounts and the sides are further decorated with marquetry vases of flowers and leafy scrolls. The piece measures 1,200mm wide × 680mm deep × 870mm high.

André-Charles Boulle

André-Charles Boulle has become synonymous with the distinctive marquetry technique whose primary elements are brass and tortoiseshell; however, he was also a practitioner of marquetry in multiple woods, including fruitwood, throughout his career. His design sources included those of Jean-Baptiste Monnoyer and his sons, over 300 of whose studies for flowers and birds he owned. His inventory upon death in 1732 also included a collection of flower paintings by Beaudesson. At the age of 63, in the Acte de Délaissement of 1715, the ébéniste recorded in his stock various floral marquetry furniture items of the present type, including five tables, seven cabinet doors, 19 crates of coloured veneers together with other supplies of timber for producing marquetry veneers. In 1720, the damage resulting from a workshop fire included the loss of two coloured marquetry bureaux demonstrating marquetry of this genre remained fashionable at that date.

Furniture of this kind in Boulle's documented oeuvre includes a table with provenance from Blondel d'Azincourt and

PHOTOGRAPH COURTESY OF BONHAMS



A Louis XIV ormolu-mounted ebony, fruitwood and marquetry commode, possibly by Aubertin Gaudron or André-Charles Boulle

subsequently at Wanstead, sold from the Riahi Collection, Christie's New York on 2 November, 2000 and a pair of cabinet stands also from Wanstead sold from 'Boulle to Jansen' at Christie's London on 12 June. A group of commodes closely related to the present lot include an example from the Wildenstein Collection, sold at Christie's London on 14 December, 2005 and 500 Years: Decorative Arts Europe, Including Oriental Carpets at Christie's New York on 23 November, 2010.

Aubertin Gaudron

Another ébéniste producing similar commodes was Aubertin Gaudron, whose workshop was in the rue Saint-Honoré. Enjoying Royal Patronage, Gaudron's clients included the Prince de Condé, the duc de Chartres and the duc d'Anjou. He last recorded receiving a payment by the Garde-

meuble de la Couronne in 1713. Among his commissions was a commode supplied for the château de Compiègne. It is recorded in the following description: 'de bois de plusieurs couleurs fond d'ébène ornée au milieu d'un vase rempli de fleurs posé sur un bout de table et un masque grotesque au dessous le reste rempli de rinceaux fleurs oiseaux et papillons au naturel...(AN 01/3308)'.

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